

# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 848.—Vol. XXI.]

LONDON, SATURDAY, NOVEMBER 22, 1851.

[PRICE 6D.]

### VALUABLE MINE MATERIALS FOR SALE.

**MR. PRYOR will sell BY AUCTION, at the TYWARN-HAYLE MINES, in the Parish of St. Agnes, on Monday, the 24th instant, at Ten o'clock in the Forenoon, the following**

#### SPARE MATERIALS.

- |   |   |
|---|---|
| 10 9-feet 17-inch pumps,                            | 1 6-feet 15-inch door-piece                               |
| 20 ditto 16-inch ditto.                             | 1 8-feet 15-inch windbore.                                |
| 1 ditto 15-inch ditto.                              | 1 10-inch H and top door-piece.                           |
| 1 ditto 14-inch ditto.                              | 1 9-feet 11-inch working barrel.                          |
| 10 ditto 12-inch ditto.                             | 1 6-feet 11-inch windbore.                                |
| 1 6-feet 12-inch ditto.                             | 1 10-feet 10-inch working barrel.                         |
| 7 9-feet 11-inch ditto.                             | 1 9-feet 10-inch windbore.                                |
| 3 ditto 10-inch ditto.                              | 1 6-feet 8-inch door-piece.                               |
| 5 Matching pumps, various sizes.                    | 1 8-inch stuffing-box and gland.                          |
| 1 15-inch H and top door-piece.                     | 1 6-feet 7-inch door-piece.                               |
| 1 18-inch plunger pole with stuffing-box and gland. | 7 pair flanged rod plates, 30-feet long by 8 inches wide. |
| 1 15-inch plunger pole with stuffing-box and gland. | Several lots of 9-16ths whin-chain.                       |
| 2 6-feet 13-inch door-pieces.                       |   |

The Auctioneer begs to call the attention of Mine Agents and others to the above Materials, the same being almost new, and will be peremptorily sold.

Any further information may be obtained of the Agents of the Mine, or at the Auctioneer's offices, Town Hall, Redruth.—Dated November 12, 1851.

### CARMARTHENSHIRE.

#### TO BE IMMEDIATELY SOLD, THREE SMALL FARMS.

In the upper division of the parish of BETTWS, and upon the alignment of the Llanelly Railroad, and containing about 112 acres of land, together with

FOUR VEINS OF VALUABLE ANTHRACITE COALS.

one of them about 6 feet thick; also with ONE VEIN OF IRON ORE, called the BLACK-BAND, about 15 inches thick, with several OTHER STRATA OF THE COMMON IRON-STONE OF the country.

And also BE LET, in the same parish, for a long term of years, several VEINS OF ANTHRACITE COALS, and TWO VEINS OF THE IRON ORE called the BLACK-BAND, one of them being about 15 or 16 in. thick, with several other VEINS OF THE COMMON IRON-STONE OF the country, on the MAESYGNARRE ESTATE, containing about 300 acres of land, also being on the alignment of the Llanelly Railroad.

For further particulars apply at the office of Mr. Evan Hopkins, No. 13, Austinfriars, London.

Only principals need apply.

#### TO CAPITALISTS.—TO BE DISPOSED OF, from HALF

to TWO-THIRDS PART of a SILVER-LEAD MINE, adjoining a mine now making large returns. Nearly £2000 has been spent on the mine, and large returns have been made since it was opened, and it is now in a paying state.

A small portion of the amount of the purchase will be required in cash, and the remainder will be taken in shares, free of cost, in the mine, or in any approved mines, with paid-up capitals, or dividend-paying ones.—Communications, addressed to "A. B.," Post-office, St. Columb, Cornwall, will meet with prompt attention.

#### TO CAPITALISTS, &c.—TO BE DISPOSED OF, THIRTY-

TWO (64ths) or FORTY-EIGHT (64ths) OF THE INTEREST OF TWO PERSONS IN A LEAD MINE, who hold the whole, in the county of WICKLOW, IRELAND. Capital only is requisite to make it a profitable and valuable mine, as it is proved to a certainty that a valuable lode of lead ore runs through the land, from a mine that has paid large and profitable returns for many years.—Terms and particulars may be known by applying to "J. F.," care of Thomas Lucas, Esq., Stone, Staffordshire; or "A. B.," care of Messrs. Batchelor Brothers, 68, Rawson-street, Dublin.

#### TO ENGINEERS, IRONFOUNDERS, &c.—

TO BE DISPOSED OF, BY PRIVATE CONTRACT, THE STOCK, GOODWILL, AND TRADE, OF THE

EAGLE FOUNDRY, SHEFFIELD.

The premises and fixtures are taken upon lease, six years of which are unexpired, at an annual rental of £220, with option of purchasing at a fixed price.

The premises contain an area of 3900 square yards, or thereabout, and comprise—

TWO CUPOLAS, MOULDING SHOP, with cranes, 45 x 24 feet; ditto 22 x 15 feet; STEEL FURNACE, containing six holes, capable of melting from 2 to 3 tons of steel per week, or might be converted into a brass foundry; steel house, coke shed, rubbing shop, fitting shop, boring mill, 45 x 21 feet; including, as fixtures, a large LATHE, capable of turning or boring anything on the face plate, 16 feet diameter, and in the centres 3 ft. 9 inches diameter, and 30 feet long; a SREW-CUTTING LATHE, for cutting screws up to 16 feet, with change wheels, upright drilling machine and crane, engine-house, with an 8-horse condensing engine, a fixture and fans, fitting shop, 45 x 21 feet; model shop, 36 x 15 feet; blacksmith's shop, 27 x 12 feet, containing two fires; erecting shop, 30 x 24 feet; four shops, each 27 x 12 feet, used at present as model-makers' and stove grate fitting shop, four hearths, offices, two cottages, stables, and other conveniences.

The STOCK TO BE DISPOSED OF comprises MOULDING SHOP, 52 x 30 feet erected by the present tenants; pig-iron, metal boxes, models, including about 200 wheelpatterns, three lathes, vices, boring-rod, and other tools pertaining to the boring-mill; blacksmiths' and other tools, furnace stock, wood horses, carts, dray, office fittings, &c.

The above offers a good opportunity to parties desirous of commencing in the above line, the business having been established upwards of 40 years, and the connection first-rate.

The books may be inspected, and the prices obtained for castings shown.

The stock will not exceed £2500, and contains only the plant and tools necessary for carrying on the business. The number of hands employed is generally about 50, but capital and enterprise alone are necessary to extend the business. A portion of the purchase-money might remain on good security.

For further particulars apply to Messrs. Thomas Wilson and Co., on the premises; Mr. Liddell, Sheffield Union Banking Company; or to Messrs. Lucas and Cutts, solicitors, Chesterfield.

#### TO BE LET.—MINING SETTS ON RICH MINERAL

LODES, producing LEAD, COPPER, &c. (late opened by the proprietor, H. Richardson, Esq.), situated on the ABER-HIRNANT ESTATE, near BALA, MERIONETH, NORTH WALES.—For particulars address H. Richardson, Esq., Aber-Hirnant, Bala, North Wales.

REPORT OF CAPTAIN JAMES RULE, OF LLANGYNOG.

Having been invited to view several lead and copper lodes of great promise in Aber-Hirnant Estate, in the county of Merioneth, I recently (by request) inspected some part of them, and found that five different ones had been partially opened up by driving a few fathoms—two of which show every indication of being productive; but, from the limited workings of them so near the surface, it is impossible to state their quality; and, I am sorry to say, at present these are all abandoned, not for want of strong and good indications as to mineral qualities, but (from the information I gained) the want of spirited and enterprising capitalists—but I have no doubt this will some day be a large mining district. On the same lands, about three miles from Aber-Hirnant, about north-west, my attention was particularly directed to a place called Maelled, where I found two men driving east, only a few feet under cover, on a lode composed of lead, quartz, blende, and copper, with two well-defined walls, the lode from 3 to 4 feet wide, underlying south 3 feet in a fathom—one of the most promising I ever saw in the locality. There is an abundant supply of water at all seasons of the year, and the levels can be brought under the mountain from 80 to 100 fathoms deep, without the aid of any machinery.

These lands are the property of H. Richardson, Esq., and would be let to any enterprising company on liberal and advantageous terms. The property abounds with timber suitable for mining purposes, which would be available at a low rate. I would recommend parties before embarking to inspect, or cause the lodes to be inspected by an experienced man.

#### PONTYSYLLE FORGE, NEAR RUABON, DENBIGHSHIRE.

TO BE LET (with immediate possession), all that valuable IRON-WORK, called

THE PONTYSYLLE FORGE.

with its powerful STEAM-ENGINE, shingling, and drawing-out hammers, bolting-down and boiler-plate rolls, heating and ball furnaces, iron shears and lathe, manager's house, offices, warehouses, smiths and carpenters' shops, and pattern rooms—all of which have lately been put in the most complete repair. The work compactly roofed in—surrounded by a very extensive yard, enclosed by a high stone wall, and possessing every convenience and requisite for a weekly make of 70 tons of merchant bar and of boiler-plates.

The Pontysylle Forge is admirably situated on the margin of the Elwston and Chester Canal—being separated only by the towing path—and possessing near and convenient communications, by means of railways, leading from the premises into the heart of the Ruabon collieries, to the Shrewsbury and Chester Railway, at their Llanello-road and Cefn Stations, and by the canal to every part of the kingdom.

A most desirable opportunity thus presents for the profitable employment or investment of capital is rarely offered to the public—coals being cheap and abundant, wages and pig-iron low, and rent of premises moderate.

For further particulars apply to Mr. S. Waterhouse, Derby-square, Liverpool; or Mr. Edward Jones, surveyor, Plasna, Ruabon, who will show the premises.

#### HENDREFORGAN COLLIERY, GLAMORGANSHIRE.

TO BE LET, for a term of years, all the valuable and well-known SEAMS OF ANTHRACITE COAL, IRONSTONE, and BLACKBAND, under the HENDREFORGAN FARM, in the parish of LLANGUICK, in the county of GLAMORGAN, which comprises ONE HUNDRED ACRES OF LAND, and is situated within two miles of the Swansea Canal, to which there is communication by railroad, and within twelve miles of the port of Swansea.

The property contains the Little Vein, 2 feet thick, celebrated for the manufacture of anthracite iron; the Big Vein, 8 feet thick; the Welford Vein, 3 feet thick; and the Three Coal Vein, 2 feet thick—all of which have been proved; and also all the SEAMS or BANDS OF IRONSTONE, BLACKBAND (17 inches thick), on the north crop of the basin, some of which have been lately worked by the proprietor, and are now in a state for immediate operations. The coal is well-known in the London and other markets as Cox's Stone Coal.

Further particulars to be had of Mr. M. G. Steward, mining engineer, Bodminster, Bristol; of the proprietor, Mr. Evans Jones, on the property; or at the office of Mr. Alex. Guthrie, solicitor, Neath.

### MR. JAMES CROFTS, of 4, KING-STREET, CHEAPSIDE,

LONDON, MINING BROKER, OFFERS his SERVICES to the PUBLIC for the PURCHASE or SALE OF MINING SHARES—BRITISH or FOREIGN—and transacts business only for principals.

Mr. Crofts weekly list comprises only such shares as he has actually on hand, or under control, but he may be consulted upon every description of mining shares, whether for purchase or sale. DIVIDEND MINES pay from 10 up to 25 per cent. per annum: at the latter rate of interest, down to 30 or 22 per cent., Mr. Crofts has shares on hand which specially recommend themselves.

WEEKLY LIST OF SHARES FOR SALE.

Wheal Zion, Wheal Russell, Castle Dinas, Victoria, Caradon Wood, Wheal Fanny, Tamar Mines, Bell and Lanarth, Rocks and Trevelyan, Bodmin Wheal Mary, East Wheal Reeth, Wheal Edward, Silver Valley, Wheal Golden, Spearne Consols, Okel Tor, South Tamar, Bedford United, Calstock Consols, North Fowey Consols, Holmbush, and all DIVIDEND MINES.

Orders may be sent to Mr. Crofts to buy or sell in the CALIFORNIAN GOLD MINES, or he may be consulted thereon—Mr. Crofts having made arrangements to transact this business through a firm of high standing on the Stock Exchange.

Dated Nov. 22, 1851.

### MR. EVAN HOPKINS, C.E., F.G.S.,

MINING RECORD OFFICE, 13, AUSTINFRIARS, LONDON.

MR. HOPKINS'S OFFICE is SUPPLIED with PLANS and SECTIONS of the principal MINES in the UNITED KINGDOM.—The REPORTS, and all essential particulars, are faithfully and regularly RECORDED; these, together with possessing a thorough practical knowledge of the business in all its details, and being ENTIRELY FREE FROM SHARE DEALING, renders the office a proper and as yet the only, place where DISINTERESTED INFORMATION can be OBTAINED.

The object of the office is to communicate information on all subjects connected with General Science—on Mineral Properties in all parts of the world—to protect legitimate Mining—to see justice done to the Capitalists and Property, and to point out the necessity of placing such speculations in the hands of responsible business men. Capitalists, will, therefore, have themselves to blame, if they allow their property or capital to be wasted by jobbing and inefficient managers.

Annual returns are regularly supplied with every information that may be required on home and foreign speculations.

MR. JOSEPH JAMES REYNOLDS, STOCK, SHARE, AND MINING BROKER, takes the earliest opportunity of informing his Friends and the Public generally, that he has been ADMITTED by the Court of Aldermen as a SWORN BROKER OF THE CITY OF LONDON, and will be happy to TRANSACT BUSINESS of every description in GOVERNMENT SECURITIES, RAILWAY STOCKS, MINING SHARES, &c., which his clients may see fit to entrust to him.

OFFICES.—No. 23, THREADNEEDLE-STREET, LONDON.

Nov. 10, 1851. Office hours from Ten till Four o'clock.

### MESSRS. FRANCIS & CO., in order to avoid the complicated

and intricate system of CALLS for working or proving mines, consider that a better and more satisfactory one will be found in offering the public those chiefly in which the machinery and underground work required to bring them into a state of profit has been completed and paid for.

In mines thus far advanced, it will be obvious that as there will be no risk, so there can be no necessity for calls—the speculative part of the adventure having been gone through; and in this way capitalists will be enabled to invest with the certainty of immediate returns.

MR. MATTHEW FRANCIS takes leave to announce, that he has several THOUSANDS OF POUNDS WORTH OF SHARES TO DISPOSE OF, which, at the selling price, give a profit of from £20 to £40 per cent.

Offices, No. 7, John-street, Adelphi, London.

### MR. THOMAS JORDAN, METAL BROKER,

No. 75, OLD BROAD-STREET, CITY, exclusive AGENT for one of the BEST MAKERS OF HAMMERED IRON, for MARINE, LOCOMOTIVE, and other ENGINES.

Also AGENT for the SALE of SOUTH STAFFORDSHIRE and WELSH BAR, BOLT and BOILER PLATE IRON, in all its varieties.

The Proprietors of Lead and Copper Mines in Devon, Cornwall, Wales, &c., will and great advantage in the quality and cheapness of the Iron they require, by seeking quotations from the Advertiser.

### MR. ALFRED SENIOR MERRY, DEALER in COBALT

AND NICKEL ORES, AND ASSAYER IN GENERAL.—Address: LEE-CRESCENT, BIRMINGHAM.

### GOLDENHILL COBALT, NICKEL, COLOUR, AND

CHEMICAL WORKS, NEAR NEWCASTLE, STAFFORDSHIRE.

JOHN HENSHALL WILLIAMSON, MANUFACTURER AND REFINER.

Reference.—Professor Miller, King's College, London.

### MR. GEO. CARNE, DEALER IN STOCKS AND SHARES

28, THREADNEEDLE-STREET, LONDON.

### MR. JOHN DAVIES, MINING SHAREBROKER,

No. 33, TOWER-BUILDINGS, TOWER-GARDEN, LIVERPOOL.

### MR. BELL WILLIAMS, MINE AGENT AND VIEWER,

No. 16, CASTLE-STREET, LIVERPOOL.

### MOLYNEUX & CO., MINE AGENTS, No. 34, THREAD-

NEEDLE-STREET, have SHARES ON SALE in DIVIDEND-PAYING and OTHER MINES, which will ensure to CAPITALISTS the safest and most unexceptionable investment.

Offices of the Wheal Langford and Baring United Mining Company, and Trevelyan Consols Mining Company, No. 34, Threadneedle-street.

### MR. CRET, 1, ROYAL EXCHANGE BUILDINGS,

LONDON, BUYS or SELLS every description of MINING SHARES on COMMISSION, and has on hand FIFTY SHARES in a SILVER-LEAD MINE, at £10 per share, paying regular dividends of 30s. p. ann., with every prospect of greatly increasing.

### MINING AGENCY OFFICES, LOMBARD-STREET CHAMBERS,

33, CLEMENT'S-LANE, LOMBARD-STREET, CITY.

JAMES S. TRIPP & CO. respectfully announce that they adhere EXCLUSIVELY to a LEGITIMATE COMMISSION BUSINESS, and never deal or speculate on their own account.

ORDERS for the SALE and PURCHASE of SHARES executed with promptitude, at the usual commission.

The AGENCIES of COMPANIES and COUNTRY BROKERS UNDERTAKEN upon liberal terms.

### MINING INVESTMENT.—T. FULLER and CO., No. 51,

THREADNEEDLE-STREET, LONDON, beg respectfully to inform the public that they are in a position to BUY and SELL in all DESCRIPTIONS of MINING PROPERTY, which will pay from 15 to 25 per cent., upon present purchase, and have specially FOR SALE—Bedford United, Devon Great Consols, Wheal Mary Ann, Trevelyan, West Caradon, Wheal Reeth, South Caradon, Tincroft, Trebarn, Butterdon, Berrington Park, Wheal Vanton, Wheal Franco, Treleigh Consols, Trevelyan Consols, Castle Dinas, Wheal Edward, Wheal Zion, and Wheal Surprise.—Also SHARES in the GOLD MINES of Australia and California.

Every information given, either personally or by letter.—Office hours, Ten to Four.

### MINING RECORD OFFICE, 26, AUSTINFRIARS, LONDON.—

MR. MANUEL'S OFFICES are expressly for the USE of COMMITTEES and COMPANIES conducting their BUSINESS in LONDON, and is entirely free from share-dealing. MR. MANUEL will be happy to CONDUCT the LONDON AGENCY of any MINES now at work, or about to be worked, he having spacious and convenient OFFICES for that PURPOSE.—Terms on which the business is conducted to be had on application either by letter or in person.

Sixteen years' experience will enable Mr. Manuel to give suitable advice on all occasions.—Offices of the Wheal West House, West Callington, Bursarvo, &c.

### SHARES are TO BE SOLD in the following MINES,

VESELS, &c.

Levant	Providence Mines	East Ballewidden
Wheal Reeth	Great Work	East Wheal Reeth
Ballewidden	Wheal Franco	South Flocin
Wheal Margaret	Wheal Henry	Spearne Consols
Wheal Robins	Mill Pool	Trevelyan

Barque LEGERDEMAIN ..... A. 1, 13 years—9 years old.

TALL TALE ..... A. 1, 12 years—clipper schooner.

CHARLOTTE ANNE ..... A. 1, 12 years—ditto

Also SHARES in the CORNWALL FISHERY COMPANY, ST. IVES.

B. P. BATTEN, 1, Crown-court, Old Broad-street, London.

### REGISTRY FOR THE SALE AND PURCHASE

OF MINING SHARES.

DURRANT & CO., MINING SHAREBROKERS, 58, LOMBARD-STREET, LONDON.

Beg to draw the attention of Capitalists to their REGISTRY for the SALE and PURCHASE of SHARES.

SHARES FOR DISPOSAL.

Devon Great Consols	Wheal Mary Ann	South Caradon
Carn Bros	Wellington	Great Wheal Sheld
West Caradon	West Beller	Trevelyan
Trevelyan	Tolguis	Bedford United

N.B.—Statistical information furnished on British and Foreign Mines.—No Charges made for the registration of shares unless business be transacted.

### MR. T. P. THOMAS, MINE AGENT, 75, OLD BROAD-

STREET.—Established nine years.—Mr. T. P. THOMAS begs to inform capital-ists and the public that he is at all times in a position to BUY or SELL, at close market prices, in dividend and respectably established BRITISH and FOREIGN MINES; and having a local knowledge of the principal Cornish and Welsh Mines, from periodical personal inspection, &c., will be happy to furnish information by post or otherwise.

N.B.—Mines inspected and reports furnished.

### MINING PROPERTY.—MR. HERRON has SHARES in

the best DIVIDEND-PAYING MINES FOR SALE, and which will give the purchaser 15 to 20 per cent. for the outlay. Amongst others are the following:—

West Providence	West Caradon	Bryntall
Wheal Tremaine	South Caradon	Bottalack
Wheal Margaret	Trevelyan	Trevelyan
Condarrow	Mary Ann	Devon Great Consols
Alfred Consols	Bedford	St. John del Rey
Levant	South Tolguis	Cobry

And has also FOR SALE SHARES in MINES having a PROMISING APPEARANCE and affording greater range for speculation, such as—

Santiago	Daren	Treleigh
West Basset	East Daren	North Downs
West Towan	Cefn Bruno	South Tamar
East Wheal Reeth	Cwm Erfin	East Tamar

Mining Offices, 33, Clement's-lane, Lombard-street.

### MR. JAMES STRIDE, SECRETARY OF THE MINING EXCHANGE,

begs to state that the TRANSACTIONS BUSINESS as usual, at the JAMAICA COFFEE-HOUSE, CORNHILL, as MINING AGENT. He is engaged at the Hall of Commerce, Threadneedle-street, from Twelve to Two o'clock.

### MR. J. H. MURCHISON, having resigned the Secretaryship

of the Working Mining Company, has TAKEN OFFICES at the ABOVE ADDRESS, where the BUSINESS of the following MINES is conducted:—

Boringdon Park	Wheal Fanny	Wheal Surprise
East Boringdon Park	Lydford Consols	Wheal Victoria
Caradon Wood	North Wheal Robert	Wheal Williams
Wheal Crebor	East Wheal Russell	

### TO ASSAYERS.—WANTED, a YOUNG MAN, competent

to ASSAY SILVER ORES and LEAD ORES.—Particulars of age, present employment, &c., to be addressed to "A. B.," care of Messrs. Watson and Cuel, 1, St. Michael's-alley, Cornhill. All applications will be received confidentially.—Nov. 20, 1851.

### NEW OR SECOND-HAND STEAM-ENGINE.

WANTED TO PURCHASE, in good working condition, a ROTATIVE STEAM-ENGINE, from 24 to 30-inch, perpendicular or horizontal cylinder, with boilers, complete: to be prepared to apply for pumping and drawing stuff from two shafts. If second-hand, to be delivered and set to work at WHEAL ZION MINE within two months from date of contract; if new, three months will be allowed.—Full description of engine and boilers, stating lowest price, to be sent to the purser, Mr. H. C. Vivian, Wheal Zion, Calstock, Cornwall, before 25th inst.—Nov. 12, 1851.

### TO CAPITALISTS.—A Gentleman residing in Pool, Cornwall,

the well-known district for rich mines, begs to OFFER a PARTY commanding CAPITAL a TRACT OF GROUND FOR MINING PURPOSES, situated in the immediate vicinity, where several valuable lodes are known to exist, which have yielded immense profits in the adjoining mine, but, owing to particular reasons, a grant for working the same could not, until lately, be obtained.—Communications, addressed to "A. B.," Post-office, Camborne, will meet with prompt attention.

### LEA MINES, NORTH WALES.—Several

MINING SETTS are now TO BE LET, in the neighbourhood of the county of FLINT, some of which have been partially opened, and others are erected for further operations, and offering peculiar advantages to mining capitalists and speculators.—Applications, by letter or personally, to be made to Mr. Robert mine agent, Mold, who will show the ground, and give all information thereon.—Ty-Ucha, Mold, Nov. 14, 1851.

### MUNDIC FOR SALE.—About FIVE HUNDRED TONS

of rich SULPHUR MUNDIC, which also contains Copper and Silver, FOR SALE.—Apply to Mr. William Browne, Great Polgoth Mine, St. Austell, Cornwall.

Dated Nov. 20, 1851.

### PAR CONSOLS.—FOR SALE, ONE (128th) PART, or

SHARE.—This mine being in few hands, and the shares firmly held, the opportunity of purchasing seldom occurs. The amount of dividends paid from April, 1844, to October, 1851, has been £492 per share, and the present yearly amount is about £100. Further particulars may be obtained of Mr. James Lane, 58, Threadneedle-street.

### FIFTY SHARES FOR SALE in the CASTLE DINAS

TIN MINE, with £1 paid, at £2 10s. per share.—Application to be made to Messrs. T. Fuller and Co., 51, Threadneedle-street, London.

### NOTICE.—GREAT BRYN CONSOLS COPPER and TIN

MINE.—The GREAT BRYN CONSOLS COPPER and TIN MINING COMPANY, having REMOVED to more CONVENIENT and EXTENSIVE OFFICES, No. 76, KING WILLIAM-STREET, CITY.

### CHYPREASE CONSOLS TIN and COPPER MINE,

ST. ENODER, CORNWALL.

In 1024 shares, of £5 5s. per share.—Deposit £1 7s. 6d.

Applications for the remaining shares to be made to Mr. Thomas Lewis, No. 17, New Meeting-street, Birmingham, Purser to the Company, of whom every information can be obtained.

### WEST WHEAL GRENVILLE COPPER and TIN MINE,

CROWAN, CORNWALL.—Messrs. FOSTER BROTHERS, TOKENHOUSE-YARD, will RECEIVE APPLICATIONS FOR SHARES until THIS DAY, the 22nd inst., but no application can be registered after this day.—29, Great St. Helena, Nov. 22, 1851.

### WEST WHEAL JEWEL MINING ASSOCIATION.

Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders will be HELD at the office, as under, on Monday, the 8th day of December next, at Twelve o'clock precisely, for the purpose of dissolving the present Company.

By order of the Directors and Committee of Management.

57, Old Broad-street, London, Nov. 17, 1851. WM. NICHOLSON, Secretary.



## Original Correspondence.

## THE MAN-MACHINE AT FOWEY CONSOLS.

Sir,—I consider, for the benefit of the mining community, it should be known that the man-engine working in this mine answers every expectation, and improvement in the health of the miner is already visible. There is no doubt but that the lord, adventurers, and miners will all reap the benefit, and the lives of the latter be prolonged for years. The nobility and gentry, and foreigners also, have inspected the machine, and several have tested its safe and easy ascent and descent by going to the bottom, where the machine works a depth of about 1700 ft. from surface perpendicularly. Lord Vivian, Capt. Vivian, and Nicholas Kendall, Esq., accompanied by Capt. Puckey, who, with Mr. West, was one of the projectors, very recently descended the whole depth of the machine, and from thence into the interior of the mine, 20 fms. deeper than the machine can be applied; and on their return to the level of the machine, they partook of some cold brandy-and-water, the latter of which is conveyed through pipes to that level, with taps at some of the levels above, suitable for the miners' convenience and refreshment, which is considered an additional comfort.

Mr. Kendall often goes down into the mines, and takes a lively interest, not only as one of the lords, but in the welfare of the miners generally, and is very often known to reward the miner who has made any sort of discovery, as well in any other lord's land as in his own.

Lord Vivian and Capt. Vivian did not forget to be generous towards the miner. They left something handsome with Capt. Puckey for the men, and expressed themselves highly pleased with the machine, and gratified with what they had seen, taking with them some specimens of yellow copper ore, which they broke 1800 ft. below surface.

Capt. Puckey, on announcing to the miners, on Saturday last, when they were assembled before the counting-house for the setting, that he had a present left by Lord Vivian and his brother for them, and asked them how they would like to have it, the reply was, with one voice, and full 500 present—Give it to the distressed families who have suffered so much from their children having the scarlet fever, &c. This is certainly a praiseworthy act, and an example highly creditable.—J. PUCKEY: Fowey Consols Mine, Nov. 17.

## THE COST-BOOK.

Sir,—The novel proceeding of a Californian Mining Company being advertised as conducted upon the Cost-book Principle, has again raised the threadbare question of what is the "cost-book?" and whilst many contend that such mines only as are under the jurisdiction of the Stannary Laws can be conducted on its principles, others pretend to look upon it as a mystery, altogether incomprehensible. Among the latter I believe may be numbered the Committee of the Stock Exchange.

Having repeatedly explained through the medium of your columns what, amongst mining men, is generally considered the legitimate "cost-book," it is not my intention now to enter into any lengthened description; but I beg to be allowed to state, as my firm conviction, that mining companies can be conducted upon the principle of the cost-book, wherever that principle can be carried out. Originally, I take it, the cost-book was framed for and was peculiar to tin mines in Cornwall under the jurisdiction of the Stannary Laws; but even in Cornwall the system has been much extended, and when the Joint-Stock Registration Act was framed, representations being made of the injurious effects its provisions would have upon the outlay of capital in the mining districts, a clause was inserted, exempting from its operations "all partnerships or companies formed for the working of mines, minerals, and quarries of what nature soever, on the principle commonly called the Cost-book Principle." I have carefully gone through the Joint-Stock Act, and nowhere is mention made of the Stannary Laws or of the cost-book being confined to Cornwall. It is clearly stated that all companies are exempt, when conducted on the "principle" of the cost-book.

Now, therefore, it is necessary to inquire, what is the grand and fundamental "principle" of the cost-book? It is, I contend, a mutual partnership, where the partners manage their own affairs, each individual being responsible for the whole debts of the partnership, but no partner (or servant) having power to pledge the credit of his co-partners without their consent. The names of the partners, or as they are more commonly called "adventurers," are registered in a cost-book, where the accounts of expenditure (which should be paid every month) are also entered, and the adventurers meet once in two months (or quarterly in tin mines) to investigate their affairs, audit the accounts of their agents, vote funds, &c. A code of rules and regulations is generally adopted for the management of minor matters, and which form a part of the grand "principle" of the cost-book.

It now becomes the question, can a company working a mine in California, the shareholders being resident in England, be carried out upon the Cost-book Principle? I think not; and simply because it would be impossible that the shareholders could have the control of their affairs, or regulate the expenditure of their servants; and, therefore, the principle of the cost-book, exempted from the operations of the Joint-Stock Act, would be violated, and shareholders would be individually liable for, perhaps, an extravagant expenditure, quite beyond their superintendence or control.—ARGUS: London, Nov. 18.

## THE JOINT-STOCK ACT.

Sir,—Among the speculations which have been introduced into the market within the last month is one which claims peculiar notice, without reference to its intrinsic merits, but chiefly on the ground that its promoters have, by an evasion of the law, introduced a new element into our commercial code. A mining company, called the Nouveau Monde, has been formed in Paris, under the French law of *commandite*, which limits the liability of shareholders to the amount of their actual subscriptions, and leaves the manager alone responsible for any future deficiency. This law has found many warm advocates in England, and it is not unlikely that its adoption in the present case may point out the necessity of some enactment on the subject. The promoters of the Nouveau Monde are about to issue 100,000 shares of 11 each; these are to be assigned in Paris by the proper officer, termed a *gérant*, or manager, and to be distributed in Paris and London. The management of the concern is to be carried on by an agency in London. The opinions of eminent counsel have been taken on the necessity of registration under the Joint-Stock Act, and they all agree that it is not necessary. If this be the law, we may expect that companies for all purposes will be established under the protection of the French law, in order to avoid the liability of shareholders. I trust that this new mode of avoiding the provisions of the Joint-Stock Act may lead to the adoption of the law *en commandite*. Much may be said in its favour; it would facilitate the raising of capital among traders, and induce persons of limited income to embark small sums in commerce, which they are now prevented from doing by the liability of the whole of their property in case of failure. CAUSIDICUS.

## THE TIN-DRESSING MACHINE.

Sir,—When I wrote the letter on which you commented in your Journal of the 8th instant, in which I accepted the challenge sent me by Mr. Matthews, I thought the matter would have been brought to an issue ere this, and that any further controversy would have been unnecessary; but the wild romance of Mr. Matthews dated the 12th instant, induces me to trespass on your valuable space once more.

Immediately after the late Polytechnic Exhibition, I sent a letter, dated October 13th, to our provincial papers, in which I charged him with "imposition," because he had copied from a model I had made, and had sent his at Falmouth as an invention of his own, by which means he had obtained a prize. In the same letter I stated most distinctly that "the usual expensive and complicated modes of tin dressing induced me to turn my attention to the subject, with a view, if possible, to save labour and economise expense in that department; and after trying some few experiments for my own satisfaction, I had, in the year 1848, a model made according to my own direction, and should have carried this plan into effect (not any previous one) but for circumstances over which I had no control. That I had tried experiments was, therefore, clearly stated, and that those experiments to me were quite satisfactory, which led to the making the model in question. How comes it to pass, then, that after publishing those facts to the world, I should, on the first day of this month, have become so ignorant as Mr. Matthews represented me in his ridiculous letter? That I did see him on the day in question is a fact, when he evidently wanted to compromise matters; but on finding me firm, and that I had determined on having it thoroughly investigated, he was so very liberal as to express himself thus—"If after I lay a sketch, or drawing, of the experiment you tried at your lower stamps at Hexas before the secretary and judges of the Polytechnic Society (for I can do it), and they say that that is like mine, I will hand you over the prize!" Now, Sir, to fix upon a thing which he tells you was a failure, and which he states I acknowledged to be unlike his model, does it not appear exceedingly liberal? I did give him credit for the correctness of his copy; and here I must compliment him for his low cunning. Allow me, therefore, to call your attention to an important fact, which he avoids telling you—that is, that I employed his brother for some considerable time; that every experiment was tried immediately under his brother's eye; that his brother cut the very wood with which my model was made; and that every facility was afforded this boasting genius for knowing how it was constructed. All this he keeps from the public, and makes "an ingenious appeal" to public sympathy, pretending to be quite ignorant of my invention, and offers "to meet me" within 16 miles of Redruth, and if my model is any thing like his he would—

Why, fight a bit, and run away, And try his pen another day!

As to Mr. Newton's letter, his remarks had reference to the washing down the machine after the tin was cleaned; and here Mr. Matthews happened to make a trifling omission, perhaps from oversight, and had recourse to that of Mr. Brenton, whose rotative machines are in operation in that district. This,

however, is apart from the dressing process, which is exactly like that of mine. I shall, therefore, as soon as an opportunity offers itself, either send my model to the secretary of the Polytechnic Society, or wait on the judges, to whom I never have imputed ignorance or "inability of judgment." JOHN DAVIES: Prince Albert Mine, Nov. 18.

## THE RHOSWYDOL AND BACHEIDDON LEAD MINE.

Sir,—You, last week, noticed the fortunate development of this mine, and advised the parties to "follow in depth," as the best means of ascertaining "quantity and quality." This advice, though good in general application, appears, from what I have learnt, to be wholly unnecessary in the case of the Montgomeryshire Mine, which may be better called a quarry than a mine, for the lodes are, I am informed, in masses, like strata of rocks, and have been already laid open for more than 200 yards in length, at a depth of only a few feet from the surface. "Quarry diggings" would be the phrase best applicable to the works now carrying on, for six excavations have already been opened on the masses of lead ore which pervade the strata, and both quantity and quality increase with the extension of these surface pits. So far as I can presume to judge from what I have heard, the whole of the rising ground in the moor appears to be a solid mass of lead, or rather masses, broken only by cracks after formation, not by any intercepting or co-operative strata. From such cause, and from the result of the investigations already made by the persevering and spirited Captain Davis, there cannot remain a doubt as to the immense riches of the mine; and though not one of the original shareholders myself, I do most gladly congratulate the first adventurers, who have abided by their undertaking, on the full realisation of their very warmest anticipations. I happen to know that they are chiefly indebted to the sound judgment and fine spirit of the shareholder who, on many occasions, inspected the ground personally, and who persevered through evil and good report, encouraging confidence by his assurance of ultimate success, and by firmly holding his shares to the last, a policy from which he will now reap the benefit, as I understand he is the proprietor of no less than 800 of the 2500 shares, or nearly one-third of the whole property.

Here is an instance of the advantage of perseverance when ground has been opened bearing a really encouraging aspect. The workings of the Rhoswydol, for several years past, have produced lead, and supplies were, from time to time, sent to the market, but never in paying quantities. Many of the shareholders wavered, and others absolutely parted with their shares for a few shillings only a few months ago, and they are now in demand at from 20l. to 25l., with few sellers even at prices still higher, as the immense quantity of lead already laid open will insure large returns for years to come.

In conclusion, allow me to add that the want of straightforwardness and steadfastness in mining pursuits is the great cause of loss and disorder in such undertakings. It may be safely said that successful mining is more the result of unyielding diligence and perseverance, guided by knowledge and experience, and honourable conduct, than by a reckless or lavish outlay of money. The large capitals sunk in mining enterprises may, in a great degree, be laid to the account of miscalculating ignorance, presumptuous pretension, or scandalous imposition. The *Mining Journal* has often sounded the warning against such pretensions, and will, I trust, continue to raise its voice against the delusions practised in mining affairs. They are crying evils, and have done more to damage the cause of mining enterprise than any losses incurred by honest endeavours. At least one-half the outlay in mining schemes may truly be laid to the account of such practised delusions; for it can be satisfactorily shown that legitimate mining enterprise at home, not abroad, is on the average by far the most profitable of any mode of applying capital known to the present generation, and it will, doubtless, continue so; for, in spite of all imposture and imposition, I fully agree with Mr. Murchison, and others among your able correspondents, that "legitimate mining is becoming more and more a safer and more certain speculation, and the capitalist feels greater inducement to embark in it." It is also "becoming daily better understood, and more deserving of the encouragement of the capitalist public." The lectures now in the course of delivery at "the Government School of Mines," in Piccadilly, will go far to strengthen confidence, and to encourage enterprise in home mining.—G.: London, November 19.

## WHEAL EDWARD.

Sir,—In your Journal of last week, among the Mining Notabilia, I noticed a paragraph highly commendatory of Wheal Edward as a speculation, and of its having passed over to the Wheal Zion party, under whose management high hopes are entertained of its becoming a profitable concern. Wheal Edward, as a speculation, is not to be surpassed; but if managed no better than that its near neighbour, it will (as Zion has) prove a failure.

Your correspondent, "Argus," of Truro, in remarking on Wheal Zion, in his letter last week, states that by assay of the ores, by the copper smelting companies, they will not produce 5 per cent. Report says that the ores will not produce 23 per cent., and that their best parcel will not fetch more than 18s. per ton. These are the ores which the purser, at a meeting of adventurers, held on the mine in August last, stated would fetch 18s. per ton, and that they had at surface 35 tons of ore of that quality; it is now the middle of November, and only 61 tons raised. A long period raising 16 tons from such a course of ore as it was then described to be!

The worthy manager also stated that Wheal Arthur's deep adit would drain Wheal Zion from all water, and that two cross-courses traversed the Wheal Zion, which would take in water as fast as a man could conveniently dip it into them with a bucket. Then why not avail themselves of those privileges? There are at this date in one field in Wheal Zion six shafts, out of which number five are suspended on account of the quickness of the water; and yet the agents say the water is manageable.

It is quite unnecessary, one would suppose, to expend a sum of money in purchasing an engine when those privileges could be made available. "We shall see," as "Argus," of Truro, quaintly observes. A LOOKER-ON: Truro, Nov. 17.

## BRYNTAIL MINE—MANAGEMENT.

Sir,—Observing a letter in your Journal, signed "A Shareholder," reflecting on the management of this mine, and otherwise trying to draw inferences totally at variance with the truth and facts, I beg to state that I am always ready to give, on application, any and every information to those shareholders who cannot call at the office; but I must beg to decline answering anonymous correspondence.—JOHN H. SMITH: Cornhill, Nov. 21.

## TRENAULT LIME QUARRY.

Sir,—Immediately on perusal of the libellous letter which appeared in the last Number of the *Mining Journal*, on the subject of the Trenaunt Lime Quarry, signed "Samuel Hockaday," I wrote to Mr. Richard Dingley, of Launceston, whose name was freely used therein, declaratory of my disbelief of his having expressed himself as represented by that writer, and requesting explanation of the matter. By return of post, Mr. Dingley replied, and said:—"I never authorised any individual to use my name, and consider it an unwarrantable liberty. The expressions quoted are not mine." This from a gentleman of Mr. Dingley's known position is sufficient answer to the whole of the letter; and I shall not, therefore, take further notice of it. I forward you Mr. Dingley's letter, that there may be no error in transcription.—W. W. MANSELL: London, Nov. 19.

Sir,—In the last number of your valuable Journal, Samuel Hockaday was good enough to favour the public with his opinion of the Trenaunt Lime Quarry, which he says "will entirely fail as a paying undertaking." Now, Sir, will you grant me the same indulgence, and permit me, through your medium, to express my opinion. It is diametrically opposed to that of Samuel Hockaday. I assert that the Trenaunt Lime Quarry is a very valuable property, and that it will be productive of great benefit to those interested in it. From the time of my birth until now, which is not a short period, I have resided in the immediate vicinity of Trenaunt; I know every body for 10 miles round; my business brings me into constant intercourse with the landowners and farmers, and having made it part of my occupation for the last 12 years to inspect quarries and mines, I consider myself almost as competent to give an opinion, and to know that of others, as Samuel Hockaday, who has been filling the office of a policeman in the metropolitan force during the same period; and, therefore, with all due deference, hesitate not to say that all who are not interested in guano attach much importance to Trenaunt Lime Quarry; that they look forward anxiously for the more extensive development of the works, that the requirements for lime as manure, the only manure applicable to this soil, may be supplied from this source. Samuel Hockaday, besides, never worked in a quarry, nor in a copper, lead, or tin mine; he was merely a manganese dresser when he left his native county, for very good reasons, no doubt, about 10 or 11 years ago, and entered the metropolitan police. I scarcely believe that Samuel Hockaday was ever in the quarry—at all events, not for 12 or 15 years. However, as I will not presume to place my isolated opinion in opposition to that of so important a personage as Samuel Hockaday, for opinions occasionally differ, I corroborate my humble views by the evidence of 30 persons residing in the neighbourhood, and whose position places them beyond suspicion. I will furnish hundreds, if necessary; but there was not time to obtain more.

Samuel Hockaday states that Mr. Richard Dingley, the worthy and respectable banker at Launceston, lost money at Trenaunt; but he omits to mention in what manner. This omission I will furnish. About 20 years ago, Mr. Dingley was one of four who took the quarry, and worked it for a short time with inefficient machinery, and drew up the limestone by horse-power—I believe they had two horses. The parties, moreover, not being well versed in dialling, spent the greater portion of their money in driving an adit which was utterly useless for the purposes of the quarry; and if Samuel Hockaday and the "gentleman from London" had favoured me with their company to the quarry, which I urged, not only would I have pointed out how the failure occurred, but have shown them that now there is a powerful water-wheel and all machinery necessary for working the quarry in a business-like manner, and in accordance with the most approved method of the age, very different, indeed, to what it was in Mr. Dingley's time. But, after all, if Mr. Dingley and party did lose some money, what does it prove, as Vince, the mathematician, said after plodding through *Paradise Lost*; or does it militate against the capabilities and importance of Trenaunt? Fortunes are frequently made on the spot where fortunes have been lost. The outlay of only a small sum may of itself have been the cause of failure. Another small amount might have produced the desired result. But, be this as it may, if no better evidence can be adduced against Trenaunt, the shareholders need not doubt the result.

Besides, Mr. Dingley's partners continued to work the quarry after the retirement

of that gentleman, until the death of Mr. Menhinick, about three years since, and with profit to themselves, even with their crude mode of carrying on operations. I do not hesitate to express my doubt that Mr. Dingley spoke to a stranger, or expressed himself at all, in the manner stated by Samuel Hockaday. He would neither be so unjust nor indiscreet; and, therefore, I shall not further notice this portion of the letter. The "gentleman from London" was an utter stranger both to Mr. Dingley and the county. I did all I could to induce him to inspect the quarry; and why he would not, although within so short a distance, was unaccountable to me, especially as the weather was no obstacle; neither did he express to me a wish to see any person acquainted or connected with Trenaunt.

Whatever assertions I made in London, in reference either to Trenaunt, North Trevelyan, East Trevelyan, or Wheel Trevelyan, I am quite prepared to prove, by the testimony of the most competent judges in the county, as well as of practical working miners and quarriesmen. Some of the latter have worked at Trenaunt for 20 years. South Petherwin, Nov. 19.

Sir,—Trenaunt Lime Quarry is situated in the midst of an agricultural district, where there is a constant and increasing demand for lime. The farmers in this neighbourhood, like all other persons fond of novelty, for some time made less use of lime than in former years; but the wonderful properties of guano had been so much extolled; and the facilities of getting lime had not been good, there being no kilns burning within a less distance than from 12 to 20 miles, and as one wagon-load of guano is supposed to manure twenty acres, allowing 2 cwt. per acre, whereas it would take 100 loads of lime, at 50 bushels to an acre, so that this was an inducement to use less lime and more guano. Though guano may do as a stimulant, and succeed in getting a green crop, there is no substance for the after crops; so that when the farmer comes to cut his barley, oats, &c., he finds there has been the shadow, but that the substance is wanting. Many, indeed, most of the guano manures have long since sold. We must stop using so much guano, or else guano will stop us from farming. The Trenaunt Lime Quarry is, therefore, no speculation. The material exists in abundance. It has been worked for the last half-century, but only on a very limited scale, and with inefficient appliances. There seems to be no end to it, and the best limestone in the bottom of the old workings. The lime, moreover, is in constant demand; and as to its properties as a manure, I will obtain the testimony of the farmers of the locality, who were in the habit of using it when it could be obtained. The extent it may be worked depends, of course, on the strength of machinery and labour employed. The person who recently worked the quarries sold all he burnt, and could have sold any quantity, if he had worked more energetically in raising it. I have seen Thos. Parnell, who was once captain of the quarry, and brother of one of the proprietors. He has promised to give a special report, which will explain fully Mr. Dingley's case. Trenaunt, Nov. 19.

Sir,—We, the undersigned, landowners, farmers, and others, residing in the vicinity of Trenaunt, beg hereby to certify that we consider the lime of Trenaunt as very good, and that we look for a more extensive burning of lime at Trenaunt, that we may be supplied with it for manuring our lands and for other uses. We consider lime the best manure for our soil; and there is no other lime nearer than Lifton, which is eight miles distant from the nearest of us, and that we shall be able to draw two or three loads from Trenaunt, while we should be getting one from Lifton, which of itself would be a great saving both in time and expense.—Signed the 18th and 19th Nov., 1851.

Samuel Lane, Congdon—John Philip Wills, Delincoe—William Pearce, West Peth erwin—David B. Vosper, Landrake—Nicholas Lobb, Tregillis—Arthur Peter, Boleham—Richard Congdon and Sandercock, Honiton—George Wise, William Weale, James Roberts, William Bant, James Lane, Trethevey—Thomas Gillard, William Gilbard, and William Harvey, of South Petherwin—William Tink and Thomas Gilbard, of Pollenwick—Joseph Wain, of Drannick Town—Geddie Pearce, of Trevesper—Henry Gorman, Treven—William Keast, Piper's Pool—William Ham, Francis Prior, and Thomas Parnell, of Trewen—John Brown, of Trethenna—John Nicolls of Trevidock—T. Buller, John Medland, and Thomas Sandercock, of Trenaunt.

## ACCIDENTS IN COAL MINES.

Sir,—It is with the deepest concern that I look over the list of accidents weekly recorded in your Journal, and particularly those occurring in coal mines. Having examined many of these mines, and finding a number of able, intelligent men connected with them, I thought none could be more competent as to the means to be used as a preventive than those who have, through life, had their daily practice amidst such machinery and inflammable gases. I considered it folly for me, or others, who are mere theorists in coal mines, to attempt to dictate as to the means that should be used to effect the desired object.

When the subject was taken up by Government, I felt satisfied that effective laws would be laid down, and such men selected to carry them out as were known to be acquainted with the best mode of working, and the nature of each district. But I am sorry to say that there appears to be but a shadow of improvement as yet; the number of accidents in particular districts, or from an insufficient selection of men not suiting each particular district, or from an insufficient number to carry it out, is not for me to say; but one thing appears clear, and that a glaring fault exists somewhere, and I cannot refrain from remarking on the number of accidents weekly recorded as arising from sending men up and down in buckets, a thing unknown in Cornwall or Devon. Referring to their accidents, I am not aware of one of the kind occurring in the two counties for the past year, and your columns have to record them from coal mines weekly. Witness the one at Bilston last week. It is evident there is something wrong in the system, when we compare the coal mine accidents of this nature against those of the counties of Cornwall and Devon.

We will next see how this arises. In the latter counties, the men all go into mine by ladders, arranged so as to be almost impossible for a man to fall so far as to kill himself; these ladders are fixed in a shaft, or part of a shaft, of only 3 ft. by 6 ft., and the men go to every depth from the surface, to 600 yards, without accident. In coal mines, men all descend in buckets or skips, where their safety is dependent on a bad rope, or a single link of a chain, surges on the drum, breakage of engine and various other casualties. Is it to be wondered at that so many accidents happen? I think not. Then, I ask, why the coal miners cannot go down by ladders, as workmen in other mines do? They are not so deep; but few of the coal pits, the men pass through exceed from 200 to 300 yards, which is considered shallow in Cornwall. In nearly every case these mines have two shafts; then why not fix ladders in one, as they are fixed in other mines, and not allow a man or boy to go up or down in skips. The expense to carry the plan out is a mere trifle, when compared to the destruction of lives daily taking place.

I again notice Bilston case; here is an engine allowed to work, with 100 men ascending and descending daily, without even a guard to keep the barrel or drum from lifting out of gear. No common winding engine should be allowed to work like it, even if no risk of lives was dependent on it, when a preventive might be fixed for it. I never, in all my practical life, allowed an engine to work like it. When we see things of this kind allowed to go on yearly without the parties ever attempting to remedy it, we have strong reasons to suspect that a number of accidents occur through sheer neglect, which should be one of the first things to draw the attention of every inspector, and more particularly the shrewd working miner, whose life is in jeopardy by every act of his more illiterate brethren.

It is my sincere belief that if Government was to offer prizes to the working miner for the best plan for preventing each class of accident, much good would be derived therefrom. It is becoming doubtful, however, if Government may not be, like many others, running after theories, and not knowledge faster than the wheels of science can carry them, and have omitted the most valuable part—practice; the only true and effective guide.—N. ENNOR: Witleycombe, Oct. 29.

## THE GOLDEN MOUNTAIN OF MARIPOSA MINING COMPANY OF CALIFORNIA.

We have received the following extracts from a letter from the Hon. Col. J. C. Frémont, to his agent, R. Robert, Esq., requesting him to grant a lease to Mr. Andrew Smith, of the above property:—

Washington City, July 28.—"My dear Sir: Your letter of the 5th inst. was received on the 9th. For my opinion as to what has been done and what it is expedient to do, I refer you to my letter of this date to Mr. Hoffmann, and reply at once to that portion of your letter which refers to Mr. Andrew Smith. What we want is to develop the place with power, and its value is now ascertained to be so great, that once upon the ground Mr. Smith would be the very man to do it. As to the terms, take Dr. Patterson's result obtained from the rock which exhibits no visible gold, and which of necessity we consider our lowest figure. Then take the quantity of gold stamped in the year 1849 at the Moro Velho Mine—viz., 50,000 tons at the least quantity which would be stamped yearly at such a mine as Mr. Smith would work, and what is the result? \$17,000,000, or upwards of 3,500,000l. sterling. To no case would I like the trouble of having anything to do with the net profits, and certainly not where the outlay bears so small a proportion to the product. My portion, therefore, must be of the gold produced, and this is a *sine qua non*. The leases I have already made are on these terms." After stating some special provisions which he has inserted in the lease, the Colonel proceeds as follows:—"The mining lots which I have hitherto leased are 600 feet square, to be located upon the vein wherever the lessee may choose. To Mr. Smith I am willing to lease a parallelogram of 1800 by 600 feet, to be located as he may judge best upon the vein or lode. Also, beside the mining land, I will grant to him 100 acres of agricultural land for cultivation, for building houses, &c. This lot to be selected on the mineral lands, and the selection of it to be subject to my approval. Mr. Smith shall be entitled to water privileges, also to timber for building purposes, and for fuel. These are the general terms. If he does not think a sufficient quantity of land is granted, we might afterwards go further into the business; but this is all I can do now. Therefore, if he desires to have such a lease, and will take it and commence operations immediately, let him have it; but it must be immediately, as I shall go to California about the middle or end of September at farthest, and if this arrangement is made, it ought to be before I go. Mr. Smith ought to take efficient steps at once, and either himself go out, or send some one out about the time that I go, in order to examine the ground, and select and take possession of the ground this winter. There is abundance of preliminary work he might do this winter, such as inclosing the mining lot, putting up buildings, excavating ore, &c. He might fence in (perhaps a wire fence is best) his farming ground, and put in a crop, which ought to be done in October."

Copy of a letter from Charles F. Mayer, Esq., Colonel Frémont's legal adviser, to Mr. Andrew Smith:—

Baltimore, July 29.—"Dear Sir: Mr. Robert's letter to Col. Frémont and myself mentioning your proposal to work a portion of his California gold mining estate, has been considered by the Colonel. He meets earnestly your views, and is willing to enter into terms for your operation, and on the stipulations as to distribution of avals which you suggested through Mr. Robert. Col. Frémont has leased out parts of his domain in several instances already (say three or four); but there is a great deal of prospecting going on, and the extent of hundreds of distinct enterprises. He writes by the present opportunity to Mr. Robert and Mr. Hoffmann, and will confirm what I now, at his instance, say. The sooner you embark in your suggested action, the more desirable to Mr. Frémont, and I trust, therefore, you will at once make terms with Messrs. Hoffmann and Robert; to be transmitted to this country for Col. Frémont's consideration, which they will receive instantly, and without delay, favourably. Thus only a few weeks need elapse before your 'plan-form' shall be complete for operation. I address a few lines to you, that the absence of Mr. Robert, or any hindrance to his immediate opportunity of interview with you, may not delay your earliest access to the treasure that, I trust, is to be opened to you in the proposed arrangement. I am, dear sir, with great respect, Andrew Smith, Esq., London.

CHARLES F. MAYER.



The writer thinks a more careful search than his time permitted might, probably



**CWM LLANAFON (LEAD, LLANGYNGOG).—**Capt. James Thomas, of Clierk Castle Mines, Llangynog, Montgomeryshire, thus reports on this adventure:—This sett is situate in the parish of Llangynog, county of Montgomery, is held at 1-10th royalty, and comprises an extent of land covering an area of about 800 acres, in the immediate vicinity of the celebrated Llangynog and Craig-y-Mwyn Lead Mines; and it is supposed

**KESWICK.**—There is no alteration in the 20 fm. level south at Brandley; north, this level has been poor during the week, but the ore has again set in, and is now worth 35 cts. of lead ore per fm. Kelly's rise, this level is worth 20 cts. per fm. The Salt dump slope is worth 30 cts., the Salt level rise 10 cts., and the Salt level slope 8 cts. of ore per fm. We have cut the vein in the bottom level, but have not yet got to the grey part: what we have seen of the vein is very promising.

much pleased to see such prospect so near the surface. The lode is a beautiful beautiful sugar-spar, and large pieces of lead and mangle in it, carrying a opinion of Aboon by the side of it. The lode is well worthy attention, and it is my opinion, the time it is opened to the 20 ft. level, that it will be a good paying mine. This mine is situated by a large river, which is well calculated to keep the water out of it, without the expense of steam, and likewise to dress the minerals. This is a large chamois lode, and situated in a good mining district."



**OLD WHEEL BASSET.**—A shaft has been commenced sinking from surface on Wheel Clarence lead lode. The South Basset lode is looking more kindly in a winze from the 10 fm. level. The 20 fm. level, on the flat lode, has passed through some ore, but is again disordered by a small slide. There is one tribute pit working on the red lode, at 112 ft. in.

**PENDARVES AND ST. AUBYN.**—In the shaft the ground appears to be somewhat harder than it has been. The lode in the 34 ft. west of the engine-shaft, is decidedly improved in appearance, producing much better stones of ore, also being increased in size. In the 34 fm. level, west of the engine-shaft, the lode is still mixed with the cross-course, in consequence of which we cannot say much as to its appearance. The cross-cut now progresses favourably, and the men engaged in sinking the shaft on the same are proceeding rapidly. The lode in the deep adit east, on the north lode, is rather improved in appearance, being about a foot wide, and of a promising character. We find it very difficult to get men for the clearing of the deep adit, but hope soon to procure a party well able to put it through. The tribute department is looking much the same as it has been. If it accords with your views, I think we shall be enabled to take a stamp at a short distance from the mine for the stamping of our tinstuff, so that in about 6 or eight weeks we might be enabled to return the whole from the time of our commencement.

**PENTIRE GLAZE AND PENTIRE UNITED.**—The engine-shaft is now completed to the 34 fm. level, and the summen are engaged in casing and dividing the shaft, to throw the kibbles to the bottom, after which we shall commence cutting plat, and driving north. The lode in the 22 fm. level, south of boundary shaft, is large, and carrying lead throughout; it is somewhat disordered by an elfen course, but continues still very promising. In the 22 north the lode is 5 ft. wide, 3 ft. of which is real good lead work; the lode in this end has been improving since last setting-day. In the stopes below the 10 fm. level, south of the rise, the lode is 4 ft. wide, good saving work; in the stopes about the 10 fm. level, south of the rise, the lode has improved since last report; this is a bumpy piece of ground, and is likely to turn out well. The stopes about the 22 are looking very well, and are likely to yield good saving work, especially towards the east and west walls. No alteration at South Hill north noticed. The parcel of silver-lead ore mentioned in last report weighed 22 tons 1 cwt., dry weight. We are about to fix a new 24-in. plunger at the stamps floors, to supply the crusher and stamps with a constant supply of water, and are enlarging the reservoirs for that purpose.

**PRINCE ERNEST (NEAR BODMIN).**—I have great pleasure in informing you that the men cut last night (Nov. 18) the first lode; it is one of the most promising I have seen in this neighbourhood, a good proportion of grey and black ore throughout. I dare say we could set a good tribute pit at 2s. to 2s. 6d. in 12.

**RIX HILL.**—In the 28 fm. level the lode is 3 ft. wide, good work. I hope, by Saturday next, after extending a little on its course, to be able to give you some idea of its value. We purpose driving in the 40 south, and also in the 50. The 17 going east has improved since my last.

**RHOSWYDOL AND BACHEIDDON.**—Since my last we have proceeded on our new discovery on Bacheiddon lode; from the extreme points where we have been able to discover lead ore coming up to the surface is 60 fms. in length, on the course of the lode east and west. We have now six bargains sinking on the lode, in five of them four men, in the other six, in the two shafts four. I have let an adit to come under these shafts at a depth of 5 fms., six men to drive; it will cut the lode by the end of the month, and some of the shafts will be as deep, so that we may drive from one to the other, and stop away the ground between them—every day increases my confidence that it will carry ore in depth. I do not at present intend making any further surface, reserve, or adit, as I shall be driven on the course of the lode wherever it goes. I stated before that the new discovery is the most northern of four lodes within a width of 70 yards, and another crossing nearly at right angles. These of themselves are facts strong enough to warrant our expecting a lasting mine, but besides these, provided a person stood in the centre of our discovery, I can point out to him, within a distance of 100 fms., the following lodes:—Sir John Conway's silver-lead lode (a paying mine), the Ceulon lode, the Rhoswydol lode, the Crag-yr-Erge lode, the Bacheiddon old lode, &c. Provided our new lode takes a straight line, or makes gentle curves right and left from a straight line, then every one of those lodes I have mentioned will intersect our new lode within the bounds of our own shaft, and most likely are feeders for supplying the new lode with metal. To the east of our new mine we have a length of about half-a-mile on the course of the lode, and to the west nearly a mile in our set. From the north side of Bacheiddon we can drive levels every 20 fms., the shortest will be about 70 fms. in length, and the longest 100 fms., which will intersect the lode at a depth of about 80 fms. at least. Taking all these matters into consideration, this new mine has every prospect of being a lasting one.

**RUNNAFORD COOMBE.**—The men are still stopping in the lode which was left during Capt. Hooper's agency, and they broke yesterday (Nov. 13) as good stones of tin as ever I saw, specimens of which I have brought with me for the inspection of the shareholders. The 14 heads of stamps are constantly kept at work, night and day. I have now a batch of tin ready for the market, samples of which I have sent to Truro and the Tamar Smelting-Works, and this morning answers were received from both parties. From Truro the offer is 52s. 10s. per ton; from Tamar Smelting-Works, 52s. 10s. per ton, delivered. There is every probability of the stamps being constantly kept at work. We have driven a cross-cut north, opposite Morris's shaft, 2 fms. 4 ft., and have cut a good lode, from 1 ft. 8 in. to 2 ft. wide, similar in appearance to others opened upon, carrying tin, which I should strongly recommend to drive on, as it has so promising an appearance. In conclusion, I am happy to inform you that our prospects are brightening, and I have not the least doubt, if the mine is fully developed, it will prove a dividend-paying mine.

**SILVER VALLEY AND WHEEL BROTHERS.**—The leader of the lode in the back of the rise from the 24 fm. level varies from 1 to 2 inches in width, and is rich for grey and crystalline silver; we have broken about five bags of the best work from there during the week, and more than that quantity of good work for dressing, and as we purpose putting two more men there, our returns will be greater. In the end of the 24 the lode is not rich—part of it is saving work, containing silver-lead. In the footway shaft the lode varies very much in quality—sometimes very good for silver, at other times the reverse. Driving west from the winze, east of Murray's shaft, we have come into crushed ground; all the lode is saved for dressing, and in it there are some very good stones of silver ore. We shall take samples on Saturday or Monday from the ore raised from this shaft, which is dressed.

**SOUTH TOLGUS.**—The lode in the rise in the 66 fathom level is yielding 1 ton of ore per fm. The north lode, in the 42 west, is yielding 1 ton per fm. Your's lode, in the 42 west, is yielding 1 ton per fm. The same lode, in the 32 west is yielding half a ton per fm., and is also looking very promising, with good stones of ore in the 22. The south lode, in the adit east, is yielding 1 ton of ore per fm.

**SOUTH TRELAUNY.**—The cross-cut west is still driving in the 60, by six men, the ground in a settled state, composed of a deep blue killas. We have met with a misfortune in the 20 fm. drawing lift: one of the pumps split, and we were obliged to take it out and put it on the top of the lift: it now answers well.

**SOUTH WALES.**—We have extended the 12 fathom level on the south or Frongoch lode 5 fms. east of Thomas's shaft; for the last 2 fms. the lode has only produced stones of ore, but the present end has a more promising appearance.

**TAMAR SILVER-LEAD.**—The engine-shaft is down 6 fms. 3 ft. below the 205 fm. level; our sinking has been impeded during the last fortnight, by means of putting in new rods, and connecting another boiler at the pumping-engine. In the 205 end, driving south, there has been no lode taken down since last reported on. In the 190 end the lode is 2 ft. wide, and producing work of a coarse quality. In the 175 end, driving south of the engine-shaft, the lode is 18 in. wide, 1 ft. of which is good work—Spargins's shaft: In the 175 fm. level, driving south, there has been no lode reported since we commenced driving; at the same level, the lode is 18 in. wide, 1 ft. of which is good work. In the 160 the lode is 4 ft. wide, composed of capel and fluor-spar, with good stones of ore. At the north mine, in the 90 we have but the eastern part of the lode, which is about 2 ft. wide, and yielding work of a promising appearance. In the 80 end the lode is 18 in. wide, 6 in. of which is rich work. Our last parcel of ore, sampled on the 1st inst. No. 1, computed 38 tons, No. 2, 39 tons, was sold to T. Somers, Esq., at 18s. 14s. 6d. per ton.

**TAVY CONSOLS.**—The shaftmen are getting on well with cutting the plat and sinking the shaft under the 56 fm. level. There is no improvement in the 56 fm. level since my last—the lode is from 9 to 10 feet wide, interspersed with ore throughout, but not rich at present. In the 46 fm. level east there is an improvement in the lode, a branch of ore for 2 feet drawn from the back of the end, 9 in. wide, solid—in the bottom part of the end it is more druggy; I believe to be a part of the same branch of ore we have last in the 36, as we are in the same level, and the lode has the same character, composed chiefly of capel, mende, and copper ore, the part of the lode being carried in 4 feet wide. The lode under the slide is cut in the 36, east of the shaft, which is seen 5 ft. wide, and no north wall yet; the south part of the lode is taken down for 6 fms. in length, and is producing saving work for copper ore, and very rich for mende. No alteration in the cross-cut north in the 24. The pitch in the back of the 12 is looking pretty well, and the men are getting good wages. We are sending ore to the quay for sampling at the end of the month.

**TINCROFT.**—Highburrow tin lode, in the engine-shaft, sinking below the 162 fm. level, is 6 feet wide, worth 30s. per fm.; in the same level east the lode is 4 feet wide, worth 8s. per fm. The lode in the 142, east of Martin's east shaft, is 4 feet wide, worth 10s. per fm. for tin and copper. In the 132, driving east of said shaft, the lode is 4 ft. wide, worth 13s. per fm.; the stopes in the back of this level are worth 10s. per fm. for tin and copper. Chapple lode, in the 120, driving west of downright shaft, is 3 feet wide, worth 10s. per fm. for copper. In the 110, driving east of said shaft, the lode is 4 ft. wide, worth 6s. per fm. for tin; in the west end, same level, the lode is 3 ft. wide, but poor; we expect in driving this end about 10 fms. further to get into some productive ground, from the appearance of the bottom of the level above. Groat's lode, in the 80, west of downright shaft, is 3 ft. wide, worth 12s. per fm. In the 70, west of said shaft, driving on the south part of Groat's lode, the lode is 2 ft. wide, worth 5s. per fm.; this end is within 2 fms. of the boundary. At North Tincroft, in the 120, driving east of new engine-shaft, the lode is 2 ft. wide, worth 4s. per fm. In the west end, same level, the lode is 3 ft. wide, worth 6s. per fm. In the 110, driving east of said shaft, the lode is 14 ft. wide, worth 7s. per fm.; in the western end, same level, the lode is 24 ft. wide, producing good stones of copper ore. In the 100, east of Willoughby's shaft, the lode is 2 ft. wide, worth 16s. per fm.; in the same level, west of engine-shaft, the lode is 4 ft. wide, worth 20s. per fm. In Frideaux's winze, sinking below the 90, about 6 fms. west of the 100 end, the lode is 3 ft. wide, worth 22s. per fm. At Stainaby's, about 15 fms. west of the shaft, in the 24 fm. level, we have set a cross-cut to drive south to cut East Wheel Croft's caunter, and expect to do so in the course of a fortnight. I am glad to inform you of a very good discovery on Dunkan's lode, in the back of the 100; about 15 fms. west of the engine-shaft the lode is 5 ft. wide, worth 40s. per fm. for copper; we believe this lode is standing to the south of the 90, and have, therefore, set a cross-cut to drive south in the 90, and expect to cut it by the end of next week.

**TREBELLAN AND TREBSKIN.**—Since my last, this mine has improved in appearance, the engine having reduced the water so as to enable me to enter, examine, and set seven pitches to tributaries in the 25 fm. level—we sink this level at 2s. per fathom by six men, this end yields good work for lead; near it I have set a pitch at 4s. per ton, and an adjoining one at 6s. per ton. About this place I intend to stop a piece of ground which is likely to be very productive, the mineral there having gone down from above. All the other pitches in this level are taken at 6s. per ton. The east end of the 15 fm. level has greatly improved during the past week, and shows those indications which are uniformly found near a bunch of lead in the west end of the level; the lode is 3 ft. wide, worth 6s. per fm. In the 110, driving east of said shaft, the lode is 14 ft. wide, worth 7s. per fm.; in the western end, same level, the lode is 24 ft. wide, producing good stones of tributaries at work, raising ore to grass—these are working at 5s. per ton, and are likely to make good wages. The water has been so far mastered by the lifts as to enable us to put the plunger in perfect order, and to set it to work, consequently lowering the water steadily. This state of things has induced tributaries to come to us with some degree of confidence in our prospects; indeed, they have applied to be allowed to drive the 35 fm. level, although it is not dry. If nothing happens to check us, the engine at its present rate of working will bring us dry at the 35 fm. level about the middle of next week, when of course we shall proceed to put that level in full operation; and if our present prospects continue, as I am told they do by those who have worked there before, we shall raise lead from there in good quantity. We have begun to

bring lead to grass, and I have no doubt we shall continue to do so, as the tributaries have gone heartily to their work. Taking the mine as a whole, its present aspect is decidedly a very favourable one.

**TREGARDOCK.**—The engine-shaft is sunk 22 fms. 1 ft., at the bottom of which, or nearly so, we have driven the cross-cut south towards the lode 3 fms. 1 ft., and expect to reach it about 5 fms. more, which I expect will be about the beginning of Dec. In the last 6 feet the ground has been more tight than usual, in consequence of meeting with some branches of spar; at this time we are clear of them, and the ground more favourable for driving. In the last foot or two we have had some good portions of silver-lead ore in the heads, and trust shortly we shall find a productive lode. The water is still very easy, and the horse-engine continues to work well.

**TREGORDEN.**—The lode in the 50 end south still continues to yield some good work; it is 18 in. wide, and ore throughout. In the 40 end south the lode with capel is 2 ft. wide, and of a more promising character than it was before. For the present the driving the 40 end north is suspended, and driving has commenced in the 30 south, under the old engine-shaft. On the 13th instant 5 tons of rich silver-lead ore were sampled.

**TRELAUNY.**—Trelawny shaft is sunk 5 fathoms below the 107 fm. level—the ground as before. In the 107 end north and south the lode is 3 ft. wide, and worth 6s. per fm. In the 92 end north the lode is 4 ft. wide, and worth 8s. per fm., and in the south end in this level the lode is much improved, being now worth 10s. per fm. In the 82 end north the lode is 3 feet wide, and worth 11s. per fm.; in the north winze in the bottom of this level the lode is 3 ft. wide, worth 10s. per fm.; we have now stopped sinking it, having a good lode coming up from the back of the level below—we intend to communicate it by way of stopping. At the north mine, Smith's shaftmen are still about the necessary shaftwork. Since last week we have forked the water, and have resumed the driving of the 68; in the north end the lode is worth about 7s. per fm., and in the south end 11s. per fm. The 55 end north is without alteration; the two winzes in the bottom of this level are respectively 40 and 60 fms. north of the present 68 end; they are now worked as tribute pitches—each 4 or 5 fms. long, and are turning out well so far. The 68 end, north of Tremane, has been driven since last week, not being able to draw the stuff, the engine being under repairs. In the 68 end, north of ditto, the lode is 3 ft. wide, worth 6s. per fm. Our stopes and tribute pitches are producing much as usual.

**TRELEIGH CONSOLS.**—Christie Lode: In the rise above the 100 fathom level, west of Garden's, the lode is 30 inches wide, with stones of ore. In the 90, west of ditto, the lode is 24 ft. wide, worth 5s. per fm.; in the stopes above this level, east of Woolcock's rise, the lode is 24 ft. wide, worth 3s. per fm.; in the stopes below, west of Terri's winze, the lode is 2 ft. wide, worth 30s. per fm.; the winze below, west of Garden's, is suspended, as there is too much water for sinking; these men are clearing the 40 fm. level at North Downs; in the same level, east of Christie's, the lode is 3 ft. wide, with stones of ore.—Parent Lode: The 64 cross-cut, north of Parent shaft, is driving north to cut Parent lode; ditto south, to cut the Middle lode.—Middle Lode: Burgess's shaft, below the 25, lode 15 in. wide, with stones of ore.

**TYLLWYD.**—The adit level eastward has reached the old men's workings where there is ore for 30 fms. long, which will yield 15s. worth to the fathom. As soon as the machinery is completed good profits will be divided.

**TYWRNHAILE.**—The 100 west is yielding 4 tons of ore per fm.; there remain 5 fms. to hole to the level coming east. The 90 east is yielding 1 ton per fathom. The lode in the 60 east, on Taylor's, is disordered by a capel, and yields at present only 1 ton of ore per fm. This lode in the 60, is producing 3 tons per fm. Wheel Clarence lead lode, in Nancokkuk, continues to look well, and productive ground is being laid open fast in the several shafts and levels.

**UNITY CONSOLS.**—The summen are now down nearly 9 fms. below the 60 fm. level in Gray's engine-shaft; the ground has proved very much against the men during the last week, owing to a floor of capel and spar. I hope they have nearly got through it; I have no doubt they will be down to the 70, and cut the lode at that level before Christmas. In the 60 fm. level, east of engine-shaft, the lode is 2 feet wide, and greatly improved for tin—worth 3s. to 4s. per fm.; in the 60 fm. level west the lode in the 42 level is 24 ft. wide, worth 5s. per fm.; in the stopes above this level, east of the 42 level, the lode is 24 ft. wide, worth 3s. per fm.; in the stopes below, west of Terri's winze, the lode is 2 ft. wide, worth 10s. per fm. for tin; in the stopes in the back of the 60 east the lode is 2 ft. wide, and worth, for tin and copper, 3s. per fm. In the 50 west the lode in the end is 2 feet wide, and worth 6s. per fm. for tin. At Lambro, the 40 fm. level, east of Kenworthy's shaft, is suspended for the time, in consequence of water in Wheel Kitty oozing through, and the men are afraid the water in that level will break in upon them, but as soon as the flat rods are at work, and we have forked to the 40, the men will recommence operations in that quarter with renewed vigour; the flat rods, and at the 42 level, the lode is 24 ft. wide, worth 5s. per fm.; in the stopes above this level, east of the 42 level, the lode is 24 ft. wide, worth 3s. per fm.; in the stopes below, west of Terri's winze, the lode is 2 ft. wide, worth 10s. per fm. for tin; in the stopes in the back of the 60 east the lode is 2 ft. wide, and worth, for tin and copper, 3s. per fm. In the 50 west the lode in the end is 2 feet wide, and worth 6s. per fm. for tin. 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## New Patents.

## LIST OF PATENTS GRANTED DURING THE PAST WEEK.

W. C. Scott, Cambridge, for certain improvements in the construction of omnibuses and other public and private carriages.  
J. Lott, Whitechurch, Southampton, for improvements in harness and fastenings.  
C. Ewing, Bodorgan, Anglesea, for an improved method or methods of construction applicable to architectural and horticultural purposes.  
P. Erard, Great Marlborough street, for improvements in piano-fortes.  
A. D. Lisco, Slough, for improvements in the manufacture of chains, and in combining iron with other metal applicable to such and other manufactures.  
W. Hamer, Manchester, for certain improvements in weaving textile fabrics.  
H. Besemer, Baxter House, St. Pancras, for improvements in producing ornamental surfaces on woven fabrics and leather, and rendering the same applicable to bookbinding and other uses.  
F. J. Bramwell, Millwall, for improvements in working the valves of steam engines for marine and other purposes, and in paddle wheels.  
J. Statham, Sidney-street, City-road, for certain improvements in piano-fortes.  
J. S. Bailey, Victoria-terrace, Keighley, York; and I. Bailey, Victoria-street, Bradford, York, for certain improvements in preparing, combing, and spinning wool, alpaca, mohair, and other fibrous materials.  
C. F. Tachet, Paris, for improvements in preparing wood to prevent its warping or shrinking.

## DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

T. and C. T. Robson, Ligonport-street, double-beller iron for solid hoop wheel-tyre.—A. Craven, Stamford-hill, feeding apparatus for steam-bollers.—S. Williams, Commercial road, Lambeth, electric lift.

## PROVISIONAL REGISTRATIONS.

T. E. Jones, Birmingham, improvement in the solar shade.—A. A. Hely, C.E., Westminster, anti-pickpocket, or pocket protector.—Walter de Winton, Lamb's Conduit-place, Bromham-cab.—M. Cavanagh, Nottingham, adjusting lock spindle.—F. Harrison, Liverpool, Prince of Wales's piano forte.—Mechanics' Magazine.

The Mines of Rio Tinto, in the neighbourhood of Seville, have lately attracted much notice. An able pamphlet on their capabilities has been written by Mr. Edward Manby, the brother of Mr. Charles Manby, the secretary of the Institution of Civil Engineers. This gives a full report of the present and future prospects of the association to work this property. These mines have been worked from the earliest period. In the year 1762 the labourers there discovered a plate of copper with the following inscription:—"Imperatore Nervæ Casari Augusto Pontifice, Maximo Tribunicæ Potestatis Patri Patriæ Consuli III., Designato IV., Pudens Agusti Libertus Procurator Patrono suo posuit." We shall give some particulars in our next Journal, as the mines possess the capabilities of further development, and offer a good investment for capital. The want of machinery and scientific knowledge has hitherto prevented them from being explored.

The Viscount de Sequeville, whose name is familiar to our readers as connected with the Duisburg Mining Company, applied on Thursday last for his discharge from the Insolvent Debtors' Court. From the evidence adduced during a protracted investigation, it appeared that he had iron mines in the neighbourhood of Cologne, which, if properly worked, would not be underrated at 15,000. The sum of 8000, had been given by him to the Prussian Government for the Duisburg Mines. That sum had been invested, in the year 1847, by the Witten Zinc Company, which, when the revolution of 1848 broke out, it was found necessary to break up. He had, likewise, sums of money owing to him from the Drysdale Railway Company, which he was to receive upon return of the Belgian Government of the caution-money received from the shareholders. The principal cause of the failure of the company arose from the fact that English capitalists withdrew, and were indisposed to speculate, owing to the unsettled state of relations on the continent, and particularly Germany, where his property was situated. The final order was adjourned, with leave to apply on the 12th December.

**HARRISON'S ELECTRO-MAGNETIC ENGINE.**—This engine acts on the principle of the induced magnetic power of a compound coil or coils of insulated wire conveying a current of galvanic electricity, which acts upon and draws within a suitable aperture, or repels therefrom, a plate or a series of plates of soft iron, or a body of wire, or permanent steel magnets. Two highly-important advantages are gained by this arrangement—1. They succeed in altogether avoiding the greatest impediment which has hitherto existed in the economical use of electro-magnetism as a motive-power—viz.: the retarding influence of electro-magnets acting on each other after the battery current has been cut off; for as there is but one body of iron or steel in connection with each coil, no such counter-attraction can possibly occur.—2. Another great superiority of the principle is, that the effect of secondary currents is very much reduced; and where permanent magnets are employed to pass within the coils, the induced current augments the primary current, and thus a considerable saving in the consumption of the materials of the battery is effected. Other advantages possessed by their engine, the patentees briefly point out:—1. They obtain great length of stroke in engines of reciprocating action, and in rotary engines an almost unlimited amount of power may be obtained; the soft iron plates, or permanent magnets, being arranged in the manner of an endless chain, with intervening non-magnetic bodies passing through the coils, over drums.—2. The body of iron or magnet acted upon exposing a large amount of surface, an instantaneous and powerful induction of magnetism occurs; and thus the highest speed is obtained.—3. By employing a compound conducting material, they transmit a strong current of electricity, and obtain increased magnetic effect.—4. The larger the engine, the greater is its economy, which is directly reverse to the act in all other modes of applying electro-magnetism hitherto adopted. After many years of experiments, they feel great satisfaction in having accomplished so much, and ascertained the true direction in which improvements are to be made. They have no hesitation in asserting that they shall be enabled to obtain motive-power by their electro-magnetic engine at as cheap or cheaper a rate, and much more advantageously, than by steam.

**THE ELECTRIC FLUID.**—Dr. Steinheil, director-general of the electric telegraphs in the Austrian States, has discovered the means of causing the electric fluid to act at any distance. Heretofore it has not been possible to transmit signals for more than 800 miles. Dr. Steinheil has not yet stated the secret of his apparatus, which he calls the "translator." It is combined with the ordinary telegraph. The experiments made with it have perfectly succeeded. A despatch sent from Semlin by way of Hermanstadt, Lemberg, Oderberg, Vienna, and Trieste to Milan, arrived as rapidly as one sent from Vienna to the Palace of Schonbrunn, a very short distance. One advantage of Dr. Steinheil's system is to prevent delay at any station by the multiplicity of despatches, as, instead of sending them by the direct lines, they may be forwarded as rapidly and as safely by any others, even by those which go the most roundabout way.

Mr. Harper, of the Taff Vale Iron-works, Glamorganshire, has had a gold watch presented to him, at a public meeting, bearing the following inscription:—"Presented by the workmen of the Taff Vale Iron-works, on the 8th Nov., 1851, as a testimonial of the respect and esteem with which they regard him, after his having been for five years connected with these works."

## ACCIDENTS.

**Mogau.**—J. Ellis, aged 12, in coming up the new shaft at North Wheel Basset, stepped on to a balance-bob connected with some flat-rods, which, taking stroke at the instant, carried him up against a beam, and crushed him to death.

**St. Wianow.**—As J. Angwin and comrade were coming up in a kibble at the Duke of Cornwall Mine, they met the descending kibble, which struck the former on the head, and he fell down the shaft and was killed.

**Levant.**—As a miner was charging a hole at this mine, a spark from the iron rod against the stone fired the powder, and he is so much injured that no hopes of his surviving are entertained.

**Trevelick.**—John Jeffery, one of the men who was injured at the Devon Great Consols Mine last week, has since died.

**Breage.**—As A. Stephens was working in West Wheel Providence Mine, he called to his comrades to lower to him a new pick, in doing which it unfortunately slipped from the rope and stuck in his side, from the effects of which he died. His comrades gave him notice to stand aside, which he neglected to do.

**Explosion of Fire damp at Burden.**—Since the explosion in Lord Bradford's Colliery, on the 8th inst., the most untiring exertions have been made to extinguish the fire—the anxiety being greater from the endeavour sooner to get out the bodies of the two sufferers which remain in the pit. The air in the shaft was found gradually to cool down, and a good current of air established; and Mr. Garney's admirable arrangement for extinguishing fire in mines has again been completely successful. The bodies were expected to be got out yesterday morn'g.

**Aberdare.**—James Shilvers, was killed at Lwydceon by a fall of earth.

**Whitehaven.**—H. Steel, who had been working in Duke Pitt, and had come to what is called "the high," with a view of ascending the shaft of Wellington Pit, being impatient to reach the top, leaped into the skip before it had reached the level on which he was standing, and not catching hold of the rope, he was precipitated headlong down the shaft—a depth of at least 40 fathoms, and killed on the spot.

**Dudley.**—One man (Brooks) was killed, and two others (Bradley and Crispin) injured by an explosion of gas at Messrs. Blackwell and Co.'s Russell Hall Colliery.

**Monkwearmouth Colliery.**—William Scott was killed here by an explosion of fire-damp, caused by blasting with gunpowder, and three others were much injured.

**Sedgely.**—As John Lewis, aged 12 years, was working at Wednesday Oak Iron-works, he got entangled in the "rolls," and was so frightfully mangled, that death was almost instantaneous.

**Walton.**—Edward Jackson (who was subject to fits) fell from an elevated place of rock at Mr. W. Harrison's stone pit, in Shaw's-alley, and was killed.

**Dilston.**—John Williams was killed by a fall of coal at Mr. B. Gibbons's colliery.

**Walsley.**—On Wednesday morning, an accident occurred in Messrs. Procter and Walton's colliery, at Shafton, by which Henry Nann and George Jagger lost their lives. They were borrowing wood from one hole to take to another, when a large portion of the roof fell, and killed them.

## Current Prices of Metals, Stocks, &amp; Shares.

METAL MARKET, London, November 21, 1851.

ENGLISH IRON.	per ton.	Tin.	per lb.
Bar, bolt, & square, London	25 2 6-5	Old copper	287 10 0
Nail rods	25 0 0-2 6	Yellow Metal Sheathing	94
Hoops	6 10 0-2 18	Wetterstedt's Pat. Metal	111 0
Sheets (angles)	7 6-7 12 6	Foreign copper	77 0-37 0
Bars, at Cardiff & Newport	4 7 6-4 10 0	South American, in bond	77 0-37 0
Refined metal, Wales	3 0 0-3 5		
Do. anthracite	3 10 0	ENGLISH LEAD.	
Pigs in Wales	3 0 0	Pig	16 10 0
Do. do. forge	2 5-2 10	Sheet	17 10 0
Do., No. 1, Clyde, net cash	1 18 9-2 0 9	Pipe	18 0 0
Blewitt's Patent Refined Iron	3 10 0	Red lead	19 10 0
for bars, rails, &c., free on board at Newport	3 10 0	White ditto	25 0 0
Do., do., for tin-plates, boiler plates, &c., ditto	4 10 0	Patent shot	21 0 0
Stirling's Patent 7 in Glasgow	2 15 0	FOREIGN LEAD.	
Toughened Pigs 7 in Wales	3 10-3 15	Spanish, in bond	15 17 6
Staffordshire bars, at the works	5 5 0		
Rails (Staffordshire)	5 10 0	ENGLISH TIN.	
Chairs (Clyde)	4 0 0	Block	4 4 5
		Bar	4 5 8
		Refined	4 10 0
		FOREIGN TIN.	
		Bracca, H. C.	4 0-4 10
		Straits	3 19-3 19 6
		TIN-PLATES.	
		IC Coke	1 3 0
		IC Charcoal	1 8 6
		IX ditto	1 14 6
		SPELTER.	
		Plates, warehouse	14 10 0
		Ditto, to arrive	14 10 0
		ZINC.	
		English sheet	21 5 0
		QUICKSILVER	31 0 0

Terms.—a, 6 months, or 2½ per cent. dis.; b, ditto; c, ditto; d, 6 months, or 3 per cent. dis.; e, 6 months, or 2½ per cent. dis.; f, ditto; g, ditto; h, ditto; i, ditto; k, net cash; l, 6 months, or 3 p. cent. dis.; m, net cash; n, 3 months, or 1½ p. cent. dis.; o, ditto; 12 dis. Cold-blast, free on board in Wales. † Dis. for cash in 14 days, 10 per cent.

WELSH IRON still continues depressed, but the accounts from the United States are much more encouraging.

SCOTCH IRON has rallied and improved in price fully 6d. per ton; there are buyers of mixed Nos., warrants, at 39s. cash, and sellers at 39s. 6d.

LEAD is without alteration.

ENGLISH TIN is much required for: Foreign also continues in demand, but there are few sellers; 80s. 6d. has been paid for Banca, and there are buyers at that rate, but sellers ask 81s.; Straits is held at 79s. 6d.

COPPER moves off steadily, without variation in price.

TIN-PLATES.—Large sales have been made both on the spot and for forward delivery at a slight decline in price—say 2s. here, and 2s. 6d. in Liverpool.

SPELTER has been animated: 150 tons are reported at 147. 5s.; sellers now ask 147. 10s.

NEW YORK, Nov. 8.—Scotch pig-iron continues firm; common English bars have advanced—800 tons brought 83s. six months, which has since been refused for more; higher rates being now demanded.

The imports from foreign ports from 1st of January to 31st October this year, amount to 46,057 tons bar, 43,500 tons pig, and 608,000 bundles of other descriptions, against 47,182 tons bar; 30,760 tons pig, and 437,096 bundles of other descriptions, for same time last year.

GLASGOW, Nov. 29.—As it is generally believed that pig-iron has seen the lowest point, there has been a strong disposition to purchase during the week; but as the makers refused to sell, and holders of warrants are asking much higher prices, there has been little done, comparatively. Buyers, however, have been forced, in most instances, to pay advanced rates; and mixed Nos., good brands, storekeepers' warrants, for the iron, deliverable free on board anywhere in Glasgow, cannot be bought under 39s. 6d. per ton, cash down; and 41s. has been paid for parcels, three and four months open, with 2s. 6d. per ton deposit in cash. There is, however, very little iron offering, and the market closes very firm at the above quotations.

**MINES.**—The dealings in shares, during the past week, considering the abundance of money in the City unemployed, have been very small—few shares, indeed, having changed hands: Alfred Consols, Devon Consols, South Tolgus, Spearhead Consols, Wheel Basset, and Wheel Lovel, dividend mines, have been done at a trifling advance; all others at lower rates. Bell and Lanarth, United Mines (Tavistock), West Polgoth, St. Aubyn and Grylls, West Damsel, East Boringdon, Trebell, Rhoswydol, Vention, Butterdon, Wheel Golden, and Wheel Langford are rather more in favour. The rest, on our second list, are generally in statu quo, and little doing.

In the Metal Market—Copper continues in excellent demand, both for home trade and exportation.—Lead is still dull of sale.—British Tin is in good demand, and a large business has been done: Foreign also is in request, at improved rates.—Tin-plates have again receded in price.—Spelter has been animated: 150 tons are reported at 147. 5s.; sellers ask 147. 10s.—In Welsh Bar-iron a moderate business doing, with an upward tendency; Staffordshire more inquired for.—In Scotch Pig-iron some large speculative purchases have been made, and an advance of 6d. per ton has taken place.—Swedish Iron quite neglected.

In the Bullion Market.—Mexican and South American dollars, buyers at 4s. 10½d. per oz. Bar silver containing gold, all gold above 5 grains in the pound to be paid for, 5s. 0½d. per oz. standard. Bar silver without gold, 5s. 0½d. per oz. standard. Bar gold, 77s. 9d. per oz. standard. Fine cake silver, 5s. 5d. per oz.

The silver-lead miners are pleased to see the steady rise in the price of silver, however small. A further advance has taken place since our last publication, notwithstanding the yield from several concerns in Cornwall, Wales, and elsewhere, is reported to keep up the average quantity.

The sale of copper ore at Thursday's ticketing was 2828 tons, amounting to the sum of 16,413l. 3s. 6d., the average produce and standard being 8s. 99½d. The corresponding sale last month was 3546 tons, 9½d. 98½d. 12s.—a fall of 1½ tons.

The ticketing for 90 tons of Foxdale (Isle of Man) lead ore varied from 8l. 14s. per ton, by Pontifex and Wood, to 11l. 16s. 6d. per ton by Walker, Parker, and Co.

Wheal Mary Ann sold, on Monday, two parcels of lead ore—No. 1: 84 tons, at 19l. 1s. 6d. per ton, to Thos. Somers, Esq.; No. 2, 57 tons, at 5l. 17s. 6d., to the Tamar Smelting Company.

The Tamar Company's silver-lead ore, sampled on the 1st inst., was sold to Thomas Somers—say, 77 tons, at 18l. 14s. 6d. per ton.

The directors of the Devon Great Consols Mining Company, at their weekly board meeting, yesterday, declared a dividend of 5120l., being 5l. per share, from sales of copper ores sampled in July and August last. After payment of the same, there remains a balance of 20,708l. 3s. 1d., consisting of cash, ore bills not at maturity, and reserved fund, applicable to the general purposes of the company.

At Par Consols meeting, the accounts for May, June, July, and August, showed—Balance last account, 2057l. 17s. 7d.; ores sold, 18,076l. 3s. 3d.; sale of materials, 83l. 7s. 6d.; sundries, 98l. 14s. 9d.—20,316l. 13s. 1d.—Mine and merchants' bills, 13,125l. 19s. 10d.; by dividend of 40l. per share (5120l.): leaving balance in favour of adventurers, 2070l. 13s. 3d.

At Wheel Buller bi-monthly meeting, on Tuesday, the accounts showed—Copper ore sold, Aug. and Sept., 5327l. 14s. 6d.—Labour cost, Sept., 548l. 15s. 5d.; Oct., 870l. 7s. 2d.; merchants' bills, 674l. 9s. 4d.; lords' dues, 332l. 19s. 8d.; leaves profit on the two months, 2901l. 3s. 11d.; add balance in hand, last account, 1345l. 6s. 6d., makes 4246l. 10s. 5d.—dividend, 3200l., leaves balance to next account, 1046l. 10s. 5d. The mine is greatly improved; and the estimated quantity of copper ore discovered in last month is upwards of 2000 tons. A dividend was declared of 12l. 10s. per 256th share.

At Wheel Reeth meeting, on Tuesday, the accounts for July, August, and September, showed—Balance from last account, 774l. 10s. 11d.; ores sold (less dues), 3405l. 15s.—4180l. 5s. 11d.—Mine costs and merchants' bills, 2754l. 12s. 1d.; dividend of 2l. 10s. per share (600l.): leaving balance in favour of adventurers, 825l. 13s. 10d.

At Wheel Lovel meeting, on the 7th inst., the accounts showed—Balance last account, 238l. 1s. 2d.; materials sold, 415l. 18s. 2d.; tin sold, 2098l. 6s. 8d.; carriage, 21l. 18s. 5d.; sundries, 2l. 5s. 6d.—2776l. 9s. 11d.—By labour cost, July, 488l. 17s. 5d.; August, 440l. 8s. 1d.; September, 582l. 18s.; lords' dues, 874s. 7d.; by dividend (2l. per share), 860l.: leaving balance in hand, 316l. 7s. 10d.

At the Providence Mines meeting, on Wednesday, the accounts showed—By copper sold (less dues, 5l. 10s. 7d.), 97l. 14s. 9d.; tin sold (less dues, 80l. 10s. 2d.), 1739l. 19s. 5d.; on account of tin sold, not delivered, 300l.; sundries, 10l. 7s.; balance to end of July, 41l. 15s. 1d.—2189l. 16s. 3d.—Mine cost for Aug., Sept., and Oct., 1367l. 3s. 6d.; carriage, 60l. 11s. 7d.; merchants' bills and coals, 401l. 18s. 8d.—showing balance in favour of adventurers, 360l. 2s. 6d.—By dividend of 10s. per share now declared, 280l.: leaving balance to credit of next account, 80l. 2s. 6d.

At Alfred Consols bi-monthly meeting, on Tuesday, the accounts showed—Ore sold, 3083l. 18s. 6d.—Costs and merchants' bills, 1504l. 7s. 9d.: leaves profit, 1579l. 10s. 9d.—deduct dividend, 1536l., makes 43l. 10s. 9d.; add balance in hand, last account, 263l. 7s. 10d., leaves now in hand to next account, 296l. 18s. 9d. A dividend of 6s. per share was made.

At the Tregardock Mine meeting, on Thursday, the accounts showed—Sept. cost, 61l. 18s.; Oct., 68l. 4s. 3d.—130l. 2s. 3d.—Balance in hand last meeting, 89l. 17s. 10d.; calls received, 10l. 15s.: leaving balance against the mine, 29l. 9s. 5d. A call of 10s. per share was made. The agent's report will be found in another column.

At the Lamheroc Wheel Maria general meeting, on Thursday, the balance-sheet showed—Receipts on calls and ore, 24,240l. 6s. 11d.—Cost to end Oct. 24,320l. 9s. 3d.: leaving balance against the mine, 70l. 13s. 4d. The liabilities were 735l. 11s. 6d., and assets (including 1500 estimated value of arsenic sold), 805l. 18s. 2d.: showing a balance in favour of the mine of 70l. 6s. 8d. In consequence of the accidental absence of Mr. Murray from the meeting, and of a report from that gentleman on the state of the mine, it was adjourned to the 4th Dec. next.

The bi-monthly meeting of the Coed Mawr Pool (lead) Mining Company was held last week at their offices, Adam-street, Adelphi. The accounts showed an expenditure from the commencement of 1878l. 12s. 7d., including the full completion of two water-wheels on lodes Nos. 1 and 2, the purchase of a vessel for the conveyance of the ore to market, and also the various buildings and water-courses: leaving a balance of 1021l. 7s. 5d. available as working capital, a sum reported to be not only amply sufficient to carry out all the objects contemplated at the commencement of the operations, but to extend the works largely upon the old Roman lode, by which it is fully expected the returns will be eventually doubled. Capt. Jones's reports stated that the No. 1 engine-shaft had, up to the commencement of the present month, been sunk 33 yards 1 foot, and the shaft No. 2, 24 yards 2 feet 6 inches. The level was on the eve of intersecting the No. 2 cross-course; the water had increased as the men proceeded in the breast of this level, and it was evident the cross course was not far off. He should recommend to stop sinking in the No. 2 shaft at the depth of 30 yards, and to drive under the lake to intersect the lode, and sink on the first lode cut into. The pumps had cleared the water from Jones's sink, and 12 men were put on to raise and dress lead for the market, finding their own stores, smith cost, &c., for 90s. per ton. They would have to keep the water down at their own cost; but, next month, on the completion of the cross-cut referred to, the cost of raising the ore would be reduced one-half.

At East Tywarnhayle Mine meeting, on the 7th instant, a vast number of the shares having been relinquished, and other shareholders evincing an intention of following the same step, in consequence of the large amount of calls unpaid, rendered it impossible to carry on the workings any longer; it was, therefore, resolved that the mine be at once stopped, and the engine and materials sold by public auction by Messrs. Francis Pryor and Richard Greenwood, in order that the concern might be at once wound up. Also that legal proceedings be forthwith instituted against all defaulters, for the recovery of the respective calls due.

At Tremar Mine meeting, on the 10th inst., the accounts showed—Balance last account, 2057l. 7s. 4d.; call made 10th Sept. (received on 891 shares), 445l. 10s.—650l. 17s. 4d.—August cost, 178l. 15s.; Sept. ditto, 213l. 12s.: leaving balance to next account, 258l. 10s. 4d., and 133 shares in the hands of the committee. A call of 1l. per share was made towards paying for the steam-engine, and Mr. Jury appointed purser. By Capt. Rule's report, they contemplate the cross-cut from Raby's lode to the engine-shaft will be completed in six weeks. The shaft is down 6 fathoms under adit. The house is nearly ready to receive the engine, which is expected to go to work in January.

At the Wheal Oak meeting, on the 13th inst., the accounts showed—Balance last account, 120l. 3s. 4d.; labour cost for seven months, to end Aug. 533l. 8s. 3d.; materials, 153l. 16s. 10d.—809l. 8s. 5d.—Cash in pursuer's hands, 53l. 14s. 9d.; received for tin, 54l. 18s.; on shares relinquished, 14l. 8s. 6d.; call of 5s. on 998 shares, 249l. 10s.: leaving balance against the mine, 437l. 2s. 2d. In consequence of 82 shares having been relinquished, and 49 not taken up, the mine is now divided into 949 shares, upon which a call of 10s. per share was made. The lode in the 44 east is 15 in. wide, with good stones of copper, saving work for tin, and abundance of mundic.

At Great Wheal Badden Mine quarterly meeting, on the 14th instant, the accounts showed—Balance from last account, 392l. 3d. 1d.; W. H. Gray, engineers' fees for erecting stamping-engine, 44l.: journey to Cornwall, 7l. 7s.; interest, 6l. 6s. 10d.; labour cost for August, 355l. 0s. 7d.; Sept., 361l. 7s. 6d.; October, 371l. 7s. 1d.; merchants' bills, 203l. 19s. 3d.—1741l. 11s. 4d.—Materials sold, 11l. 7s. 3d.; lead sold, Sept., 450l. 7s. 8d.; October, 442l. 10s. 2d.; Nov., 466l. 3s. 9d.; black-jack, 39l. 18s. 6d.; tin, 34l. 18s. 2d.; mundic (not invoiced) 210l.: leaving balance against the mine of 106l. 5s. 10d., to liquidate which and carry on the operations a call of 2s. per share was made. The management of the mine is now placed in the hands of Capt. John Rogers; and, from the judicious alterations he has already made, a regular monthly sampling for the future of 50 tons is likely to result.

The report of the Meerbrook Sough Company, presented by Mr. Joseph Taylor (the manager), showed on capital account—Receipts from calls, 14,918l. 6s. 3d.; and after clearing all expenses of agents and parliamentary expenses, machinery, building, &c., to get the mine into regular working, there remained a balance of 209l. 12s. 8d. On the revenue account, it appears that the receipt of ores, &c., amounted to 6397l. 3s. 3d.; and after paying expenses of mining, rates, dues, and sundries, in all, 481l. 19s. 1d., dividends have been paid to the amount of 5253l. 5s. 11d.: leaving a balance of 661l. 18s. 3d.—making the total balance available, 871l. 10s. 11d. [Particulars will be found in another column.]

At Wheal Enys meeting, on the 13th instant, the accounts showed—Labour cost, from April to the end of Sept., 414l. 18s. 10d.; materials, 183l. 12s. 5d.—600l. 11s. 3d.—Call, 267l. 10s.: leaves balance against the mine, 333l. 1s. 3d., to liquidate which a call of 10s. per share was made.—The engine-house is nearly completed, the shaft cut down and secured to the 12 fms. level. The engine will be erected on Trevanno lode, which intersects Bucks, about 30 fathoms east, and the red lode west about a similar distance.

At the Devon and Courtenay Mine meeting, on Tuesday, the accounts showed—Balance against the company last account, 30l. 10s. 4d.; Sept. cost, 503l. 18s. 6d.; October, 453l. 19s. 3d.—988l. 8s. 1d.—Call made in September, 812l.: leaves balance to next account, 176l. 8s. 1d. A call of 4s. per share was made. The engine-shaft is down to the 70 fms. level—price for sinking 18l. 10s. per fathom; cross-cut driven from thence at 8l., and cut the lode in 23 fms., 3 f. wide; driving on its course at the same price, producing 2½ tons of copper ore per fathom. The 60 has been generally poor. Carthew's shaft is down 12½ fms. under adit; about 2 fms. deeper they purpose cutting into the lode. Rendle's shaft is down 18 fms. from surface in a fine stratum; in 2 fms. more they purpose cross-cutting to see the north lode. The new drawing machine is nearly complete.

At the Runnford Coombe meeting, on Monday (Mr. W. W. Pitt in the chair), the accounts showed—Balance from last account, 30l. 4s. 9d.; calls, 218l. 14s.—248l. 18s. 9d.—By labour cost, Sept., 61l. 2s. 10d.; ditto, Oct., 33l. 16s. 8d.; calls accounted for by treasurer, 39l. 5s.; paid Mr. John Taylor, 12l. 10s.; ditto Mr. Bentall, 44l. 7d.: leaving balance in favour of company, 57l. 17s. 3d.—On the treasurer's account, a balance appeared at the banker's of 169l. 12s. 1d.: showing, on the general statement, a balance in hand, 227l. 9s. 3d.: calls due, 882l. 2s.—subject to payments to be made of 28l. 17s. 2d. It was resolved, that Mr. Manual's claim for April be allowed, subject to another resolution, that the captain be authorised to enlarge the water-wheel, and procure new rods and pulleys necessary for his suggested improvements. Messrs. Henderson, Canham, and Phoenix, expressed their intention to resign the treasurer's office, as it would be more convenient for the office to be filled by parties in London. The agent's report will be found in another column.

At Ceffn Gwyn Mine adjourned special general meeting, on Monday, Mr. Bowes was requested to continue his services as secretary until the bi-monthly meeting in next month, or his successor is appointed, and the deed be at once obtained on the conditions expressed in the grant.

At the Exmoor Eliza Mine meeting, on the 28th Oct., a statement of accounts was produced, which exhibited a balance against the company, when all calls are paid, of 30l. The 60 shares unappropriated out of 1024 are to be offered for sale to the public; and the purser is to give notice in his circular convening the next general meeting that all shares in arrears of calls will then be forfeited. Mr. W. A. Palmer is to be the purser in the room of Mr. Chant, who has resigned, at a salary of 3l. 3s. per month.

At West Callington first general meeting of shareholders, on Wednesday (Stephen Broad, Esq., in the chair), the prospect



spirited member in which they have commenced operations, with an ample steam-power of 60-inch cylinder engine, entitles them to success, and we shall be happy to announce that they have a good mine at an early period.

At Wheel Stanley meeting, on the 10th inst., the accounts for six months ending Oct. showed—Balance from the last account, 50l. 6s. 1d.; costs and merchants' bills, 240l. 11s. 11d. = 290l. 18s.—By ores sold (less dues), 20l. 17s. 7d.; call in May, 128l.; leaving balance against adventurers, 124l. 0s. 5d. A call of 1l. per share was made to pay off the balance, and for further prosecuting the mine.

At West Wheel Jewel special general meeting, held on Monday, to rescind the resolution passed at the previous one held on the 3d June last, in consequence of a very considerable portion of the shareholders not taking up preference shares, such resolution was rescinded accordingly; and finding that the board had not received sufficient assents to the proposal of raising further capital upon the existing shares of the company, the board and committee of management had no alternative but to suggest the propriety of contemplating the dissolution of the company. A resolution was accordingly come to, recommending the board to convene a special general meeting of the shareholders at the earliest time the deed allowed, for the purpose of taking into consideration the propriety of dissolving the present company, which they have accordingly done, by calling one for the 8th December.

We are informed that a call will be made on Wheel Brewer shares in January next.

At Alfred Consols, the lode in the bottom level is improved to 60l. per fm. for copper ore; the No. 1 winze, from the 80, from 20l. to 30l.; two branches there are valued worth 30l.; the lode in No. 4 winze 80l. per fm.; the tributaries throughout doing well. The sale of copper ore, on the 13th inst., 2111l. 17s., was for one month, and two-thirds of it profit.

At Tywardreath, the ground in the shaft is somewhat harder, having more spar and mudstone in it. They are about fixing a plunger-lift in the 30.

At Cefn Bruno, the lode in the shaft is worth 1½ ton per fm.; the 24 fm. level 3 tons of lead ore per fm.; the adit west is poor.

At Chyprase Consols, the progress made in sinking the shaft is about 1½ fm. per week; consequently they expect to reach the 40 about Christmas.

At Cwm Erfin the last month's produce was 18 tons; this month's is expected to be 27½ tons, so as to enable them to sample 30 tons on the 1st December.

At East Daren Mine the lode is rather disordered by a cross branch, but still yields 2½ tons of silver-lead ore per fm. under a dead piece of ground in the level above. The winze below the 10, near Taylor's shaft, is yielding 3 tons of ore per fathom.

At East Wheel George, now they have top water to drive the wheel, they are using every endeavour to sink the sump down to another level. October copper ores sampled 15 tons 17 cwt.

At Prince Ernest Mine they have intersected the No. 1 copper lode, which is reported so good that tributaries would take it at 2s. 6d. in 12; the cross-cut will be continued towards the numerous other lodes in the set.

At Bat Holes Mine, on the 13th October, 51 tons of ore were sampled. Wood lode, in the 48, is opening excellent tribute ground. The tributaries' work promises well for a good sampling of ore for the present month.

The Owlcombe Beam and Union Mines have sent off their second lot of tin, and there is little doubt that the returns will become regular; they rely on 5 tons being ready in December, and the same quantity in January next. The expenses of re-organising, repairing, &c., of this much neglected mine are nearly ended; and from the tin in sight, and the general appearances, the undertaking, it is expected, will become highly successful.

At Wheat Crebor, the crown wheel is replaced by a much stronger one, and the engine is again pumping the water from below the 12 fm. level. The winze in the adit, west of the cross-course, has cut into copper ore 12 to 18 in. solid on the south wall, under the capels.

At East Boringdon Park, a most important and valuable discovery has occurred in the 20 fm. level driving eastward, under the great backs of gossan: the lode is 9 ft. wide, ore throughout, and one part contains a branch of lead 2 ft. wide, worth about 18l. to 20l. per ton.

At Milwr Mines, the Herward shaft is down to the 110, and Milwr to the 79; a very comprehensive report, from Captain Abalom Francis, will be found among the British Mines, showing that the former proprietors commenced operations in 1823 and 1824, with an outlay of 11,200l. In 1829, they made their first dividend of 5600l., which, with those made for nine successive years, amounted to 128,241l. 6s. 4d.; discontinuing them in 1840, it is represented, from failure of the pump-work. The sets were purchased of them in Nov., 1848. The machinery thereon is very complete; in fact, more than the drainage at present requires: they have one 30-inch crusher and steam winding-engine, 18 horse-whims, 14 different ladder roads to the different veins; the royalties being 1-12th above adit, and 1-15th below. The 100 fm. level has been extended about 70 fms., through ore ground, and on a lode 6 fms. north nearly 40 fms., on a vein yielding in places from 4 to 5 tons of ore per fm. Roskell's cross-cut, a new shaft out to cut the south lodes, 200 fms. from new Herward vein. A heap put has been sunk to this cross-cut 50 fms. deep, where, by trials eastward, a confident opinion of success seems to be entertained, and we hope to record it so in due season.

At the Keswick Mines they have cut into the vein in the bottom level, and as far as they have gone it is very promising. Other parts are also considerably improved, as will be found by perusing the report among our Mining Correspondence.

At Tokbury Mine they have cut a lode 4 ft. wide, rich, supposed to be one of the South Caradon lodes. We expect next week to give some particulars as to this discovery.

Great progress is making in the formation of a company for working the Great Crinnis Mine: a handsome model of which, made by a labouring workman on the spot, is now to be seen at Mr. Manuel's office, in Austin's. It is intended to unite the Ocean set with Crinnis—one-fourth of the shares being taken by parties residing in the neighbourhood, from whom will be selected a local committee.

We have received a communication from the committee of management of the East Wheel Crofty, stating that the discovery of a caunter lode, noticed in our last, is not of the importance attached to it by the party from whom we received the intelligence. It being ever our wish to insert correct information, we feel obliged for the communication, which states—"It is true, that in the position described, a small caunter branch has been seen, for some weeks past, in a tribute pitch, working at 12s. in 12, embracing all the alleged courses of ore—but no such important improvement as that stated has really taken place"—in this mine.

A large attendance of the local gentry and others interested in the Tavistock mining district took place at the East Crowndale Mine on Tuesday, to witness the starting of the new steam-engine lately constructed by Messrs. Mare, of Plymouth, and erected by Mr. Matthews, of Tavistock. The engine, a 30-in. cylinder by 9-ft. stroke, did her work in a very satisfactory style, after witnessing which the company, numbering nearly 60, adjourned to the Bedford Hotel, where they sat down to an excellent dinner, served up in the noble banqueting-hall. Mr. Josiah Hitchens presided, and Captain James Carpenter, the indefatigable agent of the mine, was vice-chairman. After the usual toasts were given and responded to, we could glean from the opinions of the practical and scientific persons present that this mine bids fair to rival its predecessors in the same channel—the Old Crowndale and Crebor Mines. The East Crowndale, its immediate neighbour, has lately cut rich for copper.

We are extremely sorry to learn from our correspondent at Truro that a very extensive run of mines (six united into one company), whose paid up capital has been 30,000l., is reported to be in that gloomy position that the late returns of about 4200l. per quarter being inadequate to meet the expenditure, and the shareholders not inclined to respond to further calls, the abandoning of them is reported as inevitable. We trust this report may not be founded on fact, but that the exploring at the deepest and other promising levels eastward may enable them to meet their cost and struggle on for some time longer, when their exertions may ultimately be crowned with success. We cannot forget the years 1839, 1840, 1841, and 1842, when a portion of this extensive run of mines was paying regular dividends, and shares bearing 20 per cent. in 1845, 50 per cent. in 1841 and 1842, 100 per cent. in 1839, and from 1835 to 1839, 150l. premium; they were at par only 14 months ago. The machinery we know to be in first-rate condition, every improvement having been adopted that was found useful elsewhere. No set of adventurers deserve success more than the party we allude to, and we know they would not throw such a body of labourers out of employ if it was avoidable. We, therefore, trust they will speedily meet with such improvement as may warrant them continuing the mine, and to the benefit of all concerned.

The arrivals at Swansea include—from Port Adelaide, 500 tons of copper ore; from Chili, 500 tons of regulus and copper.

An injunction was obtained, in the Rolls Court, on the 10th inst., to restrain Messrs. Bath and Son, of Swansea, from selling a cargo of 205 tons of copper ore, consigned to them for that purpose by a Mr. Arroyave, alleging that there was a suit now pending respecting the title to the said ore in the courts of law in Cuba. The Master of the Rolls directed an interim order to restrain the sale, plaintiff undertaking to give defendant notice of the application for next seal day, and giving an indemnity against any loss that might arise from delaying such sale in the meantime. On Thursday, Mr. Roupell moved for a continuance of the injunction, which the Master refused. It seems that an order was made to attach the copper in Cuba in July last, but not carried out; there was, therefore, nothing to justify the Court in proceeding against an absent person, or to interfere with his right to the property, without his being brought before the Court. The application was refused, with costs.

Great Bryn Consols, have cut into a rich tin lode in the adit level. An important improvement in Bell and Lanarth has brought the shares into notice. It is the old set, Penstruthal (where they made a profit, and divided 15,000l. in two months), consolidated with the adjoining sets of Bell and Lanarth, untried ground, in the midst of the best mining district of Cornwall, lying not much more than one mile from Wheal Buller, the best mine in the county, and less than that from Tresavean and Trethellan.

During the past week, shares in the following mines have changed hands:—Alfred Consols, Bedford, West Providence, Trevilian, Venton, South Tamar, Garreg, Butterdon, Kirkcudbright, Galt-y-Maen, Trenault, St. Aubyn and Grylls, Trelawny, South Tolgus, Devon Great Consols, North Trelawny, West Wheel Rose, Great Bryn, Wheal Langford, Trebell, West Callington, West United Hills, United Mines, Tavistock, Mining Company of Ireland, Wheal Fortune (Landulph), Beacon, West Polgoth, East Boringdon, Boringdon, Crebor, Caradon Wood, East Russell, Hennock, Tremar, Trethvey, North Robert, and Wheal Golden.

In Foreign Mines, the only dealings have been in St. John del Rey, United Mexican, and Cobre.

There has been a deal of business done in the Californian gold mining shares during the week, and some little firmness was at one time imparted by the receipt of orders to purchase from the country, but generally prices have ruled lower—only one or two descriptions maintaining former rates. Doubts as to the legality of the organisation of the Ave Maria and West Mariposa have been prevalent; and within the last two days it has been announced that both these companies have received a notice from the Registrar of Joint-Stock Companies to come in and register, so that at one time scarcely any premium was obtainable on these shares. Prospects of other projects have continued to make their appearance, and this has likewise tended to restrict operations. The closing prices were—Aguia Fria, 1½ to 1½ prem.; Nouveau Monde, ½ to ½ prem.; West Mariposa ½ to ½ prem.; Ave Maria, par to ½; Gold Mountain, ½ to ½.

A company for the purpose of working gold mines in Australia, near the new discoveries, was in course of formation during the week; but the project was abandoned yesterday. It is understood that no share or stock-broker of high standing will allow their names to be used in the formation of any company where there is not a bona fide grant of land.

At a special board meeting of the Worthing Mining Company, on Wednesday, David Halket, Esq., a gentleman highly respected, and well-known in the City for his business habits, was elected chairman of the company, in the room of Sir G. E. Hodgkinson, who has retired. Edward Rowell, Esq., of Lorraine-place, Holloway, was also elected, at the same meeting, as one of the board of directors, *ad interim*, vacant by the same circumstance.

The Australian Mining Company has received advices to the 24th July, which will be found in another column. Water having been scarce for dressing, the engine at Anstey's has been unemployed by night all June month; in consequence thereof, there has been no work done in the 20 fm. level. This will be remedied in future. The sumpmen are employed in raising halvans for the stampers. Wotton's shaft is down to the adit at Downe's Mine. Four pitches are working on tribute, each by two men, at 12s. in 12, for ores of 15 per cent., and 2s. for each unit below that produce to go to the stampers. Their ores, by assay, make 20½ per cent.

From the Linares Mines, the advices, from Mr. Henry Thomas, are to the 8th inst. There is an improvement in the 55, west of Wilson's; it is now worth 3 tons of ore per fathom; it is within 30 varas of the winze sinking down towards it from the 45, which winze is sinking on a fine lode, worth 5 or 6 tons of ore per fm., in a very favourable matrix. The 45, east of Shaw's shaft, is kindly, lode large, with a branch of lead ore worth 1½ tons per fm. The 31, east of La Esperanza winze, is worth 3 tons per fm., on an average, with a rich back and bottom, opening excellent ground for tribute. The pitches generally are looking well, and yielding a good quantity of ore. The slag furnace has gone to work, and at least cost than contemplated. The lead ore weighed in for the week is 43½ tons: total in stock, 188½ tons. Pig-lead smelted, 24½ tons: total in stock, 532½ tons.

There would appear to be some truth in the reported discovery of an enormous mass of gold in the Australian diggings: several pieces of the precious metal, after being publicly exhibited, were weighed at the Union Bank of Australia office, in Bathurst, in the presence of the manager, David Kennedy, W. H. Sutter, and T. J. Hawkins, Esqrs., and the fortunate proprietor, Dr. Kerr—Dr. Macchiatelli officiating, and Mr. Farrand acting as clerk. The first two pieces weighed severally 6 lbs. 4 ozs. 1 dwt., and 6 lbs. 0 ozs. 13 dwts.; besides which were 16 dwts. of 5 lbs. 4 ozs. each, making in all 102 lbs. 9 ozs. 5 dwts. Dr. Kerr stated that he had retained upwards of 3 lbs. as specimens, so that the total weight found would be 106 lbs., all disembowelled from the earth at one time. The locality where the gold was found is the commencement of an undulating table land, very fertile, and contiguous to a never-failing supply of water in the Murroo Creek. It is distant about 53 miles from Bathurst, 18 from Mudgee, 30 from Wellington, and 18 to the nearest point of the Macquarie River, and is within eight miles of Dr. Kerr's head station. The neighbouring country has been explored since the discovery, but, with the exception of dust, no further indications have been found.

From Western Australia, we learn that plumbago in large quantities had been discovered on the grant of the Geraldine Mining Company. A report was also current that coal had been discovered in the vicinity.

From California, we learn that mining operations of all kinds have proved remarkably profitable. Accounts generally concur that the yield of the placers has never been greater than at present, while the daily discoveries of rich auriferous quartz veins, and the development of those already worked indicate that, even if the placers fail, an undiminished supply of gold may be obtained from the hills and mountains.

Among the most remarkable of the new discoveries is a rich vein of gold-bearing quartz, within the city of San Francisco, at a depth of 60 feet, by some labourers digging a well; it is about 13 inches wide, with the particles of metal visible to the naked eye.

The export of gold for the month of September was:—To Panama, for the Atlantic States and Europe, \$3,450,000; to China and Chili, \$38,171—making \$3,488,171; to which add about another half million, carried away by private hands, and not manifested. From the facilities afforded by the assay-office in San Francisco, in smelting and running gold into coin and ingots, very little "dust" is now used as a circulating medium. The amount which entered the assay-office, for conversion into "a circulating medium," during the last month was about \$2,700,000. There is confident hope that \$70,000,000 will be the aggregate yield this year. The average rate of interest is 4 per cent. per month. Gold dust fetches \$17 per ounce readily, and is in great demand for exportation.

Several important discoveries of silver have been made in the San Joaquin district. In the region of the Four Creeks, large deposits are found. The ore is a kind of black sulphuret of silver, is blackish, brittle, cellular—affording globules of silver at the blow-pipe. The Spaniards call it *negrillo*. The specimens brought down to San Francisco by Mr. Wallis were analysed by Moffatt and Co., with the following result:—Silver in a ton weight of the ore, \$206 40c.; gold in ditto, \$27 90c.; lead in ditto, 1500 lbs. Mr. Holden has discovered a very extensive silver mine at Sonora, which prospects 50 cents. per pound silver, and 15 cents. per pound gold, with other associated metals. If the mine proves as rich as the prospect, it will be worth all the gold mines in the southern district.

A WEALTHY SET OF SHAREHOLDERS.—During the recent sittings of the Vice-Warden's Court at Truro, a party sued the resident agent of St. Michael Penhvel Mine for 5l. 7s. 11d. for wages due. The advocate stated that he was obliged to sue on the equity side instead of the small court, because there were no adventurers of the mine resident in the county, and no solvent ones elsewhere! He therefore, sued as against the materials, and obtained a verdict.

THAMES TUNNEL COMPANY.

The number of passengers who passed through the Tunnel in the week ending Nov. 18, was 16,886.—Amount of money, £70 7s. 2d.

## LEAD ORES

TICKETINGS FOR ABOUT 90 TONS FORDALE LEAD ORE.

Bidders.	Douglas, Isle of Man, Nov. 15.	Amount Bid.
Walker, Parker, and Co. (purchaser)	.....	£11 16 6
Mather and Co.	.....	10 6 6
Newton, Keates, and Co.	.....	10 4 0
John P. Eytton	.....	9 15 6
Sims, Williams, Novill, and Co.	.....	10 8 0
Tamar Smelting Company	.....	8 14 0
Pontifex and Wood	.....	9 7 6
Locke, Blackett, and Co.	.....	9 16 6
W. J. Cookson and Co.	.....	10 0 0

BIDDINGS FOR 30 TONS LEAD ORE FROM THE KESWICK MINES.

Bidders.	Sold 19th November.	Price per Ton.
Shield, Turnbull, and Co. (purchaser)	.....	£2 11 6
Locke, Blackett, and Co.	.....	9 3 6

Sold at Aberystwyth, on the 17th November.

Mines.	Tons.	Price p. Ton.	Purchasers.
Goginan	60	£14 11 0	Walker, Parker, & Co.
ditto	70	14 16 0	Newton, Keates, & Co.
Frongoch	100	10 6 6	Walker, Parker, & Co.
Graigoch	30	9 15 0	Panther Smelting Co.
Cwmystwith	45	10 5 6	Tamar Smelting Co.
Nanteos	40	9 9 6	ditto

## COPPER ORES.

Sampled October 29, and Sold at Swansea, November 18, 1851.

Mines.	Tons.	Prod.	Price.	Mines.	Tons.	Prod.	Price.
Cobre	96	16½	£12 7 6	Kapunda	37	25½	£20 3 6
ditto	91	16½	13 0 0	ditto	32	25½	27 5 6
ditto	60	15½	12 7 0	ditto	31	25½	27 12 0
ditto	48	24½	19 6 0	ditto	25	25½	43 18 6
ditto	44	23½	18 10 0	ditto	23	25½	43 17 0
ditto	36	24½	18 15 6	ditto	22	25½	43 49 6
ditto	14	18½	14 11 6	Havana	73	16½	12 13 0
ditto	57	24½	19 7 6	ditto	67	15½	11 14 6
ditto	9	7½	55 2 0	ditto	21	13½	10 10 6
ditto	105	14½	11 4 0	Berehaven	118	102	7 19 6
Cuba	100	14½	11 11 0	Waterloo Slag	29	42	2 17 0
ditto	66	14½	11 10 0	ditto	9	64	2 9 6
ditto	55	22	17 6 6	Dyflid	27	8½	6 12 6
ditto	49	21½	17 7 6	Burra Burra	3	31½	24 5 6
Kapunda	72	26½	20 19 6	Molony	1	19½	15 13 6

## TOTAL PRODUCE.

Cobre	455	£7362 4 6	Waterloo Slag	38	£122 18 6
Cuba	375	4894 5 0	Dyflid	27	178 17 6
Kapunda	242	7795 18 6	Burra Burra	3	72 16 6
Berehaven	118	1920 4 0	Molony	1	15 13 6

## COMPANIES BY WHOM THE ORES WERE PURCHASED.

Companies.	Tons.	Amount.
English Copper Company	67	£2913 18 0
Pascoe Grenfell and Sons	314	3933 12 0
Sims, Williams, & Co.	150	3604 12 6
Vivian and Sons	317	3695 3 0
Williams, Foster, and Co.	280	4501 3 0
Mines Royal	109	1602 8 0
Schneider and Co.	68	1923 6 6
F. Bankart	95	1161 19 6
Total	1420	£23,314 19 0

Copper Ores for Sale 2d Dec.—Berehaven, 117, 114, 112, 103, 81—Knockmahon, 103, 85, 68, 66, 48, 32—Cuba, 101, 62, 34, 7, 4—Cobre, 93—Ballymurrigh, 33—Cronebane, 3, 2—Tigrory, 3, 2—Chill, 3.—Total, 1276 tons (21-cwts.).

## AVERAGES.

Produce.	Price.	Standard.
British	8½	£ 6 16 0
Foreign	22½	17 16 6
Sale	20½	£ 6 8 0
Totals—British, 183; Foreign, 1237 = 1420 tons (21-cwts.).		£89 9 0

## AVERAGES OF LAST SALE.

Produce.	Price.	Standard.
British	9	£ 6 16 0
Foreign	24 1-16	19 7 0
Sale	15	£ 11 17 6
Totals—British 1020; Foreign, 688 = 1708 tons (31-cwts.).		£93 16 0

## COPPER ORES.

Sampled Nov. 5, and Sold at the Royal Hotel, Truro, Nov. 20.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Gt. Cons.	109	£4 14 6	West Caradon	95	£3 15 0
Wh. Josiah	105	4 18 6	ditto	67	8 19 0
ditto	102	7 1 0	ditto	55	7 13 6
ditto	96	4 12 6	ditto	52	8 19 0
ditto	87	4 10 6	ditto	50	6 1 6
ditto	73	5 2 6	ditto	36	4 1 0
ditto	72	5 19 0	Wheal Friendship	114	7 11 0
ditto	70	6 13 6	ditto	104	6 3 0
ditto	56	5 13 0	Fowey Consols	79	6 17 0
ditto	54	5 13 0	ditto	61	5 8 0
ditto	49	8 2 0	Bedford United	81	4 14 0
ditto	44	6 5 6	ditto	62	5 4 0
Wh. Fanny	100	6 7 6	Poldice	54	3 19 6
ditto	86	5 11 6	ditto	42	4 12 0
ditto	83	6 3 6	Wheal Arthur	53	5 8 0
ditto	57	4 2 6	Wheal Zion	36	0 18 0
ditto	30	2 16 0	ditto	25	2 0 6
Wh. Maria	71	4 8 6	Wheal Jewel	15	5 14 6
ditto	35	9 7 0	ditto	10	1 5 6
Wh. Anna Maria	95	4 8 6	Wheal Maiden	18	7 3 6
ditto	82	4 10 6	Respryn	6	4 19 0
ditto	45	12 13 0	ditto	4	10 13 0

## TOTAL PRODUCE.

Devon Gt. Cons.	109	£4 14 6	Bedford United	143	£703 2 0
Wheal Josiah	1656	£395 18 0	Poldice	96	407 17 0
Wheal Fanny	100	6 7 6	Wheal Arthur	53	286 4 0
Wh. Anna Maria	355	242 19 6	Wheal Zion	51	74 0 6
West Caradon	218	1309 6 0	Wheal Jewel	25	58 12 6
Wheal Friendship	218	1309 6 0	Wheal Maiden	18	129 3 0
Fowey Consols	293	1261 15 0	Respryn	10	73 6 0

Average Standard ..... £99 7 0 | Average Produce ..... 8½  
Average Price per ton ..... £5 16 6  
Quantity of Ore ..... 2828 tons | Quantity of Fine Copper, 243 tons 9 cwt.  
Amount of Money ..... £16,413 3 6

LAST SALE.—Average Standard ..... £103 13 0.—Average Produce ..... 7½  
Standard of corresponding sale last month, 98l. 12s.—Produce, 94.

## COMPANIES BY WHOM THE ORES WERE PURCHASED.



## NOTICES TO CORRESPONDENTS.

Capt. James Hosking has left London for the eastern district of Cornwall; he will be at Callington for a week, and then proceed to Five Lanes and Bodmin, where he will also remain about a week. Letters addressed as above will reach Capt. Hosking, and be attended to.

**ROCKS ROCK.**—“W. P. C.” will, as a creditor, be entitled to receive 16s. in the £1, from the sale of the machinery, which, after paying the costs of six suits in law, left a balance of 8611. 16s. 10d.

We could not possibly decipher the letter dated “Landolph, Nov. 14:” moreover, the mine to which the particulars refer, so far as we can gather, is not named.

**A. Z. (Penzance).**—The vacuum in the condenser is never quite perfect, for the cold water entering is heated by steam, and emits a vapour of a tension equal to about 3 in. of mercury—that is, when a common barometer stands at 30 inches, a gauge in connection with the condenser will stand at about 27 inches.

**A. Lockier on “Camelford.”**—We cannot insert our correspondent’s communication, for this reason—that enough has been said about the mine in question to put all reasonable men on their guard, and teach them to “look before they leap.” On authenticated and well-grounded information we will ever expose empiricism and abuse; but it is not our province to depreciate a mine, of which so many good reports are circulated from acknowledged authority.

**A Subscriber (Durham).**—We know of no work strictly relating to the geology and mineralogy of Australia. There is an excellent history of South Australia, with an account of its mineral riches, by Mr. F. S. Dutton. Coal has been discovered at a place called Newcastle, in New South Wales, and also in Van Diemen’s Land. We have received no information as to the progress of the iron furnace.

**E. (Highgate).**—The laws of falling bodies have been clearly defined, and the space, through which they fall per second are as the squares of the number of seconds they are falling successively—thus, as a body falls 16 1/2 feet the first second, in the second it acquires a velocity of 64 1/2 feet, in the third 144 1/2 feet, in four seconds 257 1/2 feet per second, and so on increasing in a four-fold ratio for every second of time. When the height from which a body falls is given, the velocity at the end of the fall is easily acquired. The square root of the height in feet, multiplied by 8.021, will give the velocity.

**R. S. Hoyal (Barnsley).**—Noad’s “Lectures on Electricity,” published by Knight and Sons, is the most modern and perfect work on electricity and magnetism. A much less pretentious, but excellent, manual has recently been published by John Woole High Holborn, at a very low price.

**CHEYSE CONSOLS.**—In Capt. Mitchell’s report, in the Journal of the 8th inst., instead of “where we cut the lode in the 120 ft. level,” &c., it should have been, “when we cut the lode in the 40 ft. level,” &c.

**R. B. (Cardiganhire).**—Valonia is imported from Smyrna and the Morea; it is the cup of an acorn from a peculiar oak, contains much gallic acid, and is used in lieu of bark in tanning skins.

**T. E. (Tredegar).**—Besides the patent granted to Mr. Walker, 28th March, 1850, for improvements in the manufacture of sheets or plates of iron for certain purposes, there is one granted to Charles Geach and Thomas Walker, for an extension, as assignees, of the patent of J. Hardy, for an invention of a certain improvement, or certain improvements, in the making and manufacturing axle-trees for carriages and other cylindrical and conical shafts, dated 4th April, 1849. If you require further particulars, apply to Mr. Campin, 156, Strand, or any other respectable patent agent.

**Scriptus (Hackney).**—It is estimated that there are 7,000,000 gross of steel pens made annually in Birmingham, employing 3000 persons, and consuming 700 tons of steel.

**A Young Boiler-maker (Pawich).**—The general rule for the dimensions of the chimney in steam-vessels by Boulton and Watt is 8 1/2 square inches per horse power, and in marine fire boilers they allow 18 square inches of sectional area of flue per horse power. This, however, appears to be about one-third greater than what is allowed by other makers, but with this proportion they do not supply so much steam. In marine fire boilers of good construction, the vent varies between the limits of 21 and 25, according to size and other circumstances; the largest should have the largest vent, and the calorimeter divided by the vent will give the length of the flue in feet. The collective area for the escape of the smoke and flame over the furnace bridge in marine boilers, according to Boulton and Watt’s proportions, is 19 square inches per horse power.

**H. S.**—The two cases in equity, respecting West Polgoth Mine, are postponed until the January sittings of the Stannary Court, at Truro.

**NEW GAS APPARATUS.**—Mr. Love, of St. Andrew’s-square, Glasgow, has patented a gas generator, applicable to baking, kitchen ranges, cooking stoves, and for supplying gas to locomotives, steam-vessels, and other purposes, for which a jury of the Great Exhibition awarded him a medal. Not knowing its construction or principles, we are unable to describe them, but shall be happy to do so on receiving the necessary information.

**A Subscriber (Salop).**—Great quantities of bismuth are manufactured in Saxony. A metal broker would be able to give the market price.

**A Reader (Leeds).**—Since the introduction of ultramarine, the consumption of cobalt has much decreased. Last year the mines of Modum, in Norway, could not meet with a purchaser, and the mortgages were obliged to work the property on their own account. Large quantities are found in Hungary and Bohemia. In Saxony the smelter wears his apron before, in contradistinction to the miner, who wears it behind; it is technically styled the *arsch tiefer*.

**W. L.**—Tomlinson’s “Encyclopedia of Useful Arts, Manufactures, and Engineering,” is published in a convenient size monthly, by Virtue, London and New York, by whom, on application, every information can be obtained, or through any bookseller. The proportional compasses are composed of two bars, pointed at each end—thus forming two pairs of legs; they have a slot up the centre, acting on a moveable stud as a centre, and thus, by a graduated index, one pair of the legs can be made to bear any proportion to the other which may be desired. At any point of the index, when once fixed, one pair of legs will, by any length of opening, bear a like proportion to the other; they are, therefore, highly convenient for enlarging or diminishing maps, plans, &c.

**IS MINING A PROFESSION?**—We have received from a correspondent (“J. T.” Bristol) some extended remarks on this now important subject, which, although exceedingly apposite and true in themselves, their length precludes their insertion. The following summary will convey a tolerably full idea of the writer’s views. Nothing calls forth the immediate indignation of a practical man more than the above question, as he naturally feels it an encroachment regarding the requirements he has attained by the most persevering and deep study in geological science, combined with the advantages of unwarped exertion in practical observations. Now that capital is so unparagonably brought forward, it should be the constant care of the miner not to endanger the dignity of the profession by bringing before the public mineral properties which have not been carefully inspected and approved by practical and professional men. To the want of due caution in this particular, doubtless, must be attributed much of the ill fame in which mining is held by the community at large. It is, however, gratifying to contemplate the success likely to accrue, if a fair and legitimate course of business be adopted. Proud England can boast, among her various unbounded resources, as being the mother lode of mineral wealth, which, it will be admitted, contributes in no small degree to her present proud position; and the writer then recommends a bold support of one of her most admired branches under the present favourable auspices. Some instances are also given of unsuccessful former workings through want of geological experience, which, on being taken up by men of real practical knowledge, were rendered profitable, and where serious heavy losses have been averted by the timely interposition of the professor in the practical conduct of mines, particularly in the underground workings; and from the many valuable remarks on this interesting science to be noticed in the *Mining Journal*, the belief is encouraged that we are not far from acquiring the knowledge of some important facts in the chemical and geological arrangements of mineral deposits. Men of high standing, with a few truthful observations clearly given, may do more than whole columns of verbiage which cannot be appreciated; and if capitalists would attach themselves to men of known real worth, and endeavour to understand for themselves, they would find, to their great satisfaction, more frequent remunerative results.

We are indebted to our contemporary, the *Monmouthshire Mercury*, for an early copy of the “Judgment” in the case *Brown v. Monmouthshire Railway and Canal Company*, which is published entire in this paper.

“Mallet” on the Mining Market and the Mining Exchange, will appear next week; also “Pioneer” on the Mines of Carnarvon.

••• We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

## The Cost-Book System.

Having repeated applications for particulars respecting the Cost-book System, we have reprinted, as a pamphlet, the paper descriptive of its principles and practice, which appeared in the *Mining Journal*. Copies can be procured through any bookseller or newsman, or at our office, price 6d.

••• It is particularly requested that all communications may be addressed—

TO THE EDITOR,

*Mining Journal Office,*

36, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

## THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, NOVEMBER 22, 1851.

The *MINING JOURNAL* is published at about Eleven o’clock on Saturday morning, at the office, 36, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

In our last week’s issue of this Journal, we showed that when the right to mines and minerals under any description of inclosed lands exists distinct from the property in the surface, and is not compensated upon the inclosure, it remains, together with all necessary and all auxiliary easements, in the lord or owner of the soil—or, in other words, that the inclosure does not in such a case in any way affect or disturb the right to and property in the mines and minerals. The generality of the above rule is, however, very much limited under two conditions—namely, when the mines, &c., exist under a *regulated pasture*, which is a pasture stocked and depastured in common by the persons interested therein, in proportion to their respective rights, and when under allotments in *severalty*. These conditions are established by the 97th section of the statute under discussion (8th and 9th Vic., c. 118), which empowers the valuer thereby appointed to direct, under certain circumstances, that the rights of the lord of the manor in and to all or any of the mines, minerals, stone, and other substrata under such part of the land as

shall be converted into and used as a *regulated pasture*, shall be reserved to him; and that all or any of the mines, minerals, stone, and other substrata under the residue to be divided and allotted in *severalty*, shall become the property of the owners of the respective allotments, and that the allotments be adjusted accordingly. The section is as follows:—

“By section 97th, It is provided and enacted, that in every case in which under the provisions hereinafter contained part of the land subject to be inclosed under such Act shall be converted into and used as a regulated pasture, and the residue thereof shall be divided and allotted in *severalty*, it shall be lawful for the valuer, having regard to the right of the lord of the manor as the same shall have been ascertained and declared by the provisional order of the commissioners, and with the consent of the lord of the manor, and a majority in value of the other persons interested in the lands proposed to be inclosed, to direct that the rights of the lord of the manor in and to all or any of the mines, minerals, stone, and other substrata, under such part of the land as shall be converted into and used as a regulated pasture, shall be reserved to the lord; and that all or any of the mines, minerals, stone, and other substrata under the residue to be divided and allotted in *severalty*, shall become the property of the owners of the respective allotments, and that the allotments be adjusted accordingly.”

So anxious indeed was the Legislature to vest in the lord of the manor his reserved right and property in the mines, &c., under regulated pastures, that although by the 116th section of the same statute the right to the soil of and in such *regulated pastures* is vested in those interested therein, in proportion to their respective shares, or aliquot parts as tenants in common, yet the reserved right of the lord of the manor to all or any of such mines, minerals, stones, and other substrata, is specially excepted to him from such general ownership of the soil. Thus—

“By section 116th, It is enacted that the right of soil of and in all land which shall be converted into regulated pastures shall, subject to the right of the lord of the manor to all or any of the mines, minerals, stone, and other substrata where the same shall be reserved to him under this Act, and to the other rights given or reserved by this Act, and the award in the matter of such inclosures be vested in the persons who, under the directions and determinations of such award, shall be the owners of the stints or rights of pasture therein, in proportion to the shares, or aliquot parts, which such stints shall be thereby declared liable to of any rate under this Act as tenants in common.”

We have seen that by section 97 the Legislature has also clearly expressed its intention—that the mines and minerals under allotments in *severalty* shall become the property of the owners of the respective allotments, provided as declared by the 98th section, their right to the mines and minerals existed before the inclosure, together with the property in the surface, and was not compensated upon the inclosure, or was reserved by the valuer under the 97th section. With the above remarks we conclude our notice of the law of mines and minerals, in relation to the statute, 8th and 9th VICTORIA, c. 118.

In another column will be found a brief report of proceedings in the cause *WILLIAMS v. MARSDEN* and others, the Court having refused to grant a new trial. As the circumstances attendant the case are of infinite importance to the mining interest, we are induced to direct attention to those points which appear to us the most material, and which may be calculated to act as a caution to others similarly situated. The plaintiff (Mr. JOHN WILLIAMS, of Lower Town, Gwynnap) having taken up several sets, including the Old Ecton Mine, the New York Mine (the one in question), and other holdings, proceeded to the erection of an engine on a shaft bordering on the defendants’ sett—the latter not being worked below the adit level, but which was rendered available for the purposes of drainage of plaintiff’s mine to that point. It appears an agreement was entered into and signed between the parties to the effect that, in consideration of the engine so erected, being calculated to unwater the two sets, by making a communication from the one to the other, the defendants undertook to pay one-half of the working costs, while no provision was made that the same should only be payable when the power was rendered available, nor was it stipulated that the engine should be worked for joint interest, except at the option of the plaintiff. In fact, it was a blind bargain on the part of the defendants, who might cease to work their own mine, and yet be responsible for a moiety of the engine cost, which would in such case be applied only to the working of that of plaintiff; a power moreover being vested in the latter to cease working the engine whenever he might deem proper, and thus drown the defendants’ mine.

In the course of working, on part of the plaintiff, it appears that he had incautiously (we will suppose) carried his workings beyond the prescribed limits of the sett, and had broken away some portions of ore ground. On this being ascertained, the defendants proceeded for damages, and which, in the end, were awarded at 80*l.*, the law costs being about double that sum. In consequence of this litigation, and a difference arising between plaintiff and defendants, the former claimed one-half of the engine cost, which was from 40*l.* to 50*l.* per month, the payment of which was refused on the part of the defendants, who denied that they were in any way benefitted, the several workings in this mine being at and above the adit level. Hence the proceedings—and a verdict being given for 305*l.* damages, being the cost up to the month of January or February last, to avoid which, and on certain grounds submitted to the Court, the defendants prayed a new trial. This, it will be seen, has been refused by the Court, on the ground that the verdict was in strict accordance with the tenor of the agreement entered into. This being the state of the case, we submit that the defendants are liable for the payment of a moiety of cost of working the engine so long as the plaintiff may continue working the New York Mine, although defendants may abandon their sett, and be in no way benefitted; while the past expenditure, from date of proceedings up to the present date, and henceforward, must be met by defendants.

The case is, we admit, a hard one, as it is all on one side, and would, doubtless, meet with relief in a court of equity, while, in a court of common law, it is only to make a decree in accordance with the terms of agreement. The damages and costs must exceed 1000*l.* or 1200*l.*, while the subsequent accounts may be set down at 200*l.* at least, and this arising from want of legal acumen in drawing up the agreement, and want of proper understanding on the part of the plaintiff and defendants; the former, we are given to understand, holding no interest in the mine—his shares having become forfeited from non-payment of calls. The lesson, we trust, will not be lost sight of, inasmuch that, in cases of a similar nature, the lawyer should not only be consulted but held responsible for preparing so loose an agreement; while it will be a caution to the honest adventurer, whereby he may escape the trammels of the law, or the legal construction to be put on an instrument not carefully worded.

In the *MINING JOURNAL* of the 1st inst., we noticed a case tried at Newport, Monmouthshire, in which Mr. JAMES BROWN sought to recover of the Monmouthshire Railway and Canal Company the amount of damages which he had sustained by reason of defendants having refused to convey him from their station at Court-y-Bella to Ebbw Vale, after having given notice on the previous day to that effect. The Court, in delivering a most elaborate judgement, and citing numerous cases on the subject which met its views, said the counsel on behalf of the defendants contended—1. That the provisions of the company’s recent Acts of Parliament, with respect to the conveyance of passengers, were not obligatory on them, but merely empowered them to adapt their railways to locomotive traffic.—2. That supposing the duty of conveying passengers along the line by locomotive or other moving power to be cast on the company, there had been no breach of such duty; inasmuch as the offer to convey the plaintiff from Aberbeeg in the tram drawn by horse-power, was a sufficient compliance with the provisions of the Act.—3. That the company having exhausted all their pecuniary means of improving their railways, were not answerable in damages to the plaintiff for the non-completion of any part of the works required by the Act.—4. That the present action did not lie, because—1. The public Act, 7th and 8th Vic., c. 93, s. 17, had provided a different remedy; and—2. The plaintiff had sustained no particular injury, in any respect differing from that to the public at large. His Honour considered that if the complaining party had sustained no injury peculiar to himself, or different in its nature from that which all the Queen’s subjects who would travel along this line of railway if completed sustain in consequence of the non-completion of the works required by this Act of Parliament, he had no redress by action. And it certainly appeared that there was nothing to distinguish the grievance which the plaintiff complained of from that which every person sustained whose business would take him along the road between that place and Ebbw Vale, and who would be desirous of availing himself of railway conveyance. It was quite clear that the plaintiff knew when he gave his notice of the 25th Sept., and when he applied for his

ticket, that the company could not afford him railway accommodation; and that his journey to Ebbw Vale was taken, and the expenses incurred, chiefly for the purpose of creating a particular damage on which to found an action against the company. The case was, therefore, clearly distinguishable from those cases cited, and in which it had been held that an action will lie; and unless this principle of law, which, according to Lord Coke, “is provided for avoiding multiplicity of suits, for if any one might have an action, all men might have the like,” be any thing more than a barren maxim, he was of opinion that a person sustaining an injury, like that arising from the non-completion of this railway, which was common to all the public who may have business along the road, must do or suffer something more than the plaintiff had done or suffered, to convert the common and general grievance into a particular injury. He, therefore, considered that the plaintiff must be nonsuited; at the same time, he thought it right to observe that the question was a very proper one to raise in one of the superior courts, where, of course, the solution of it would be more satisfactory than there; and he had the satisfaction of knowing that the decision at which he had arrived did not prevent the plaintiff from resorting to one of such tribunals; whilst, on the other hand, if he had decided in his favour, he should have felt that the defendants had no means of bringing his judgement under review, however erroneous it might be.

At the Stannaries Court, Truro, on the 6th inst., an important case was heard—JOEL ALLEN and others v. NOEL CLYMO,—as regards Wheal Tremaine, in the parish of St. Ervan. Plaintiffs sought to recover 30*l.* 2s. for work done by them in April, May, and June last. JOEL ALLEN and three partners proved they were employed by the defendant at certain fixed wages, amounting to the sum claimed; it was at surface, and sundry witnesses were called to prove seeing them performing it—among the rest, the defendant, who admitted he was the resident captain on the mine, and the amount was due to the parties. On cross-examination, he said he was engaged by Mr. DYMOND, of London, about four years ago, who had paid him his wages; the mine, during that period, was idle two years;—when it was again re-worked, he was employed by Mr. WILLIAMS, under whom he acted, and was paid for six months. The mine remained again idle for 16 months: on resuming operations, he was directed by Mr. DYMOND to employ the plaintiff, he being engaged as captain. Mr. STOKES addressed the Court for the defence; he appeared for the real owners of the mining materials, who were exceedingly surprised at finding that labourers had been sent on the mine without their knowledge—claiming a lien on the materials. They knew nothing of DYMOND, who had, in reality, nothing to do with the mine, and was totally unconnected with the real owners of the materials. Mr. CHILCOTT replied, that the custom had always been for the working miner to look only to the resident agent for payment—that working men could never know the real adventurers. The petition had been served three months ago, and it was very extraordinary, if there were any *bona fide* adventurers, that they had not been called into Court to say so. There was nothing to prove the fact, and they might exist only in the advocate’s imagination.

On Saturday last his Honour delivered judgment, admitting the defence was important; it was urged that DYMOND, being a trespasser on the mine, it was hard that the adventurers’ machinery should not only be used by him, but be sold to pay wages under such trespass. The answer to which is,—that it would be harder if miners, working on a hiring well known in this district, and knowing only their hirer, should fail to have their remedy if they do not know persons at a distance, out of the jurisdiction of the Court, and who have not appeared. The process of the Court in proceeding to sale was so cautious and so public, that it seemed impossible that any adventurers could unjustly be deprived of their property, or of the opportunity of making a defence in behalf of such property. If there were any adventurers in this mine they might have added themselves to the defence. They have not appeared, and plaintiffs, under the circumstances, may be allowed to assume that Mr. STOKES’s clients do not legally or, perhaps, at all exist, except as represented by Mr. DYMOND. The decree, therefore, must be, that the sum proved (30*l.* 2s., with costs) be paid.

Application was made for a new trial of the cause, “CLIFF v. F. PRYOR,” fully noticed in last week’s Journal; but the VICE-WARDEN considered that the case had received every possible attention; that the arguments had been comprehensive and ample; that the decision had been studiously left to the jury, who had paid the most marked attention to the evidence and facts submitted, and had cautiously arrived at their verdict, and in which he perfectly concurred. If he were to grant a new trial, he should be expressing doubt where he had none; and in effect be saying that in every case attracting attention, or of importance, there should be a new trial. He, therefore, refused the rule; because he thought the verdict was not against the preponderating weight of evidence.

It has long been an axiom, that a coal mine is more profitable than gold seeking; and much as has been said and written about the auriferous riches of California and Australia, we think circumstances are now transpiring which will tend to turn the attention of the thoughtful and the enterprising to the exploration of some of the yet untrodden mountains and valleys of our own islands, before they run the risk of a journey to, or an investment of capital in, places at the antipodes, where, to one who succeeds to any extent, hundreds have reaped, and more will reap, the fruits of their ignorance and folly in ruin, misery, and death. We would call the serious attention of our readers to a communication in another column under the signature of “Juvenis” (Cleveland), to some newly-discovered and valuable beds of iron ore in the north of Yorkshire—a seam from 10 to 17 ft. thick, producing 35 to 40 per cent. of pure iron, of excellent quality, in the neighbourhood of cheap lime and coal, and close to a first-rate harbour for shipment. Already has one company commenced raising 800 tons per day, and other extensive works are about to open a mine from which they intend to raise 1000 tons a day. At the Institution of Civil Engineers, on Tuesday, Mr. C. MAX exhibited some specimens of the ore, and fully corroborated the statement of our correspondent: the discovery, he said, would probably cause as great a revolution in the iron trade of the north of England as that of the black-band in Scotland had produced some years since. Mr. MAX said the advantages of this ore were so fully estimated by the proprietors of some iron-works, where there were 11 furnaces, that they had ceased to work ore from their former mines, but conveyed this a distance of 55 miles by railway, with advantage in the quantity and quality of the iron. We have no doubt but that mineral discoveries of various kinds will yet be made in many parts of the United Kingdom, with equal advantages.

In the present days of advanced knowledge, and the rapidly progressing state of society, some information on the physical sciences is sought by all who have received a liberal or even tolerably good education; and any publication which simplifies the means by which correct information may be obtained in the search after an insight into those sublime truths which nature opens to our view is a powerful incentive to scientific pursuits, both in the young and in those of more mature growth. In the present enlightened age the natural and physical sciences are indeed of the highest importance to all classes of the community, and that they should form an especial branch of study in every educational establishment is an axiom acknowledged as true by every liberal and well-informed mind, as not only the artist, the poet, and the philosopher, but the manufacturer and agriculturist, especially bring this knowledge to their aid. In the *MINING JOURNAL*, of 8th March last, we noticed the publication of *The Book of Nature*, by FRIEDRICH SCHÖDLER, Ph.D., Professor of the Natural Sciences at Worms, and formerly assistant in the Chemical Laboratory of Gießen, edited from the fifth German edition, by HENRY MEDLOCK, F.G.S., senior assistant in the Royal College of Chemistry, London.\* This volume was an elementary treatise on the sciences of physics, astronomy, and chemistry, and we have now before us a second volume on mineralogy, geology, botany, physiology, and zoology, thus embracing the whole round of the natural sciences. The author states, and such fact is borne out throughout the work, that his object has been to

\* Published by John Joseph Griffin and Co., Baker-street, Portman-square.



render the *Book of Nature* a manual that may be appropriately placed in the hands of pupils in all institutions for the education of the young mind, and where the importance of a general knowledge of the natural and physical sciences is recognised. Founded on a scientific basis, composed with simplicity and clearness, and avoiding as far as practicable isolated facts, it presents a comprehensive view of all the principal branches of that knowledge on which it professes to enlighten. That this has been accomplished in the most satisfactory manner we bear our willing testimony; its plan is orderly, condensed, and comprehensive, the whole being illustrated by a large number of unusually well-executed wood diagrams—the language is simple and concise; as far as possible abstruse technicalities are avoided, and, where necessary, fully explained.

A pamphlet, entitled *Some Remarks on Mining Accidents*, by the Rev. S. PLANT, vicar of Weston-upon-Trent, Staffordshire, addressed as a letter to SMITH CHILDS, Esq., M.P., has just been forwarded to us. The author states that his remarks were originally intended for publication in the newspaper press, but finding they had outgrown the limits necessary for that purpose, he gives them to the public in the present form. It commences by showing the very limited powers of the present inspection, whose existing authority is totally inadequate to provide a remedy, and their being able to obtain further powers will depend on the support and impetus they may receive from public opinion. The truth is, there are so many obstacles, in the shape of prejudices and private interest, that although the subject has been many years under the consideration of benevolent men, and the reports of committees of Parliament are most voluminous, there was the greatest difficulty in passing the Act of last year, in all its mild inoffensiveness. It proceeds to an examination into the causes of the numerous fatal accidents, commencing with imperfect ventilation and the DAVY lamps; and shows that the latter, although they have enabled much coal to be raised which might not otherwise have been brought into use, or must have been got at greater cost, by enabling men to work in an atmosphere more fully charged with carburetted hydrogen, have rendered adequate ventilation less essential, and placed men in greater risk from carelessness and accident; and the fact, as stated in the Report of the Committee of the House of Commons in 1835, is that since the introduction of the DAVY lamp accidents had rather increased than diminished. The nature of proper ventilation is described, and the uses of air-heads, doors, brattices, &c., entered into, with GURNEY'S steam-jet, NASH'S fan, and other appliances, for insuring sufficient and regular ventilation. In considering this part of the subject, the author submits that it is not unreasonable, considering the vast amount of human life at stake, for the public to demand an Act which shall give an inspector power to fix in each case how great a current of air is sufficient to insure the safety of the mine; to require, under a penalty, that a satisfactory method of gauging the current be provided at all times accessible to him; and that this current be distributed in an effectual manner through the mine. If in any mine an explosion takes place, causing loss of life or bodily injury, and it be proved the inspector's requirements were not carried out, then the owner to be liable to a severe fine upon each life lost, or person injured, which fine shall be applied to the benefit of the sufferers or their families. Until some such legal enactment be made, Government cannot be considered to have discharged its duties as the protector of all classes and interests of the realm.

The writer then proceeds to accidents from falling down shafts, severely and laudably repudiates the practice of leaving old unused shafts entirely unprotected, as well as the insecure manner in which shafts in operation are left, and gives a record of numerous horrible accidents from these causes, which have, from time to time, appeared in our Journal.

We are glad to be able to state that the Government has at length filled up an office which ought to have been done months since, and which delay, we have no hesitation in saying, if not culpable and in known opposition to the public wish, is, at least, unaccountable, while there are always so many men of real high practical attainments who would accept such office, and execute its duties efficiently. Sir GEORGE GREY has at length appointed HERBERT MACKWORTH, Esq., to be an inspector of coal mines, in the room of J. KENYON BLACKWELL, Esq., resigned. While expressing our satisfaction at the appointment, we do not for a moment imply that here they are to lay on their oars; on the contrary, the requirements of the subject, nor the public desire, will ever be met until a fully efficient number of inspectors are appointed, and a much more complete and rational Act of Inspection be carried through the Legislature.

The nineteenth century has most appropriately been termed the "age of iron," and it would appear from the ever changing scenes which are passing around us, that it is equally deserving of the title of "the age of gold." No sooner are we become somewhat reconciled to the truth of the wild Arabian Nights Tales, which reached us about four years since from California, and to her pouring into the world's circulation some 10,000,000, annually of her auriferous treasures, than society is again startled by the announcement of the discovery of a new Pactolus, and inexhaustible mines of the precious metal, situated among the mountains and rivers of our own Colonial possessions. The latest accounts from Australia prove that the statements hitherto made of the discovery of gold, and the quantities obtained had not been exaggerated, and that to repeat the four year old tale of California would but too truly represent the condition of the colony. We trust, however, whatever may be the present impression, that the results of the Australian discovery will be very different to those of the American State; there, with no settled population, and no Government to contend with, the loafers, the rowdies, the scamps and scum of the old and new worlds had full scope for the action of their wild spirit of enterprise to revel in—as ready for possessing themselves of the property of another by robbery and murder, as by searching for the precious metals themselves. In New Holland, however, different circumstances exist, and we hope, and doubt not, that very different results will follow. With large populations, imbued with that love of peace and order so indigenous to the British nation, and a Government willing and able to support the true interests and secure the safety of the community, we think there is little to fear.

Much has been said of the convict population, and the outrages to which their habits and conduct may lead them; but we think that question must now be virtually settled, and that no Government, in opposition to the loudly expressed opinions and wishes of the whole population, will send any more criminals, more particularly to a land abounding in the precious metals, the obtaining of which would be their aim, under circumstances however desperate, and at any risk. It certainly becomes a grave question, both with the Home and Colonial Governments, what are the safest measures to pursue under the circumstances, and whether some addition to their present military staff might not be made with advantage.

Under present excitement, and while numerous gold mining schemes are being submitted for public attraction, a pamphlet, published by Mr. WYLD, Charing-cross, has most opportunely appeared, which should be perused by every one who, by laying out a little capital in gold mining shares, expects to become a second Croesus, without exertion of body or mind. It is entitled, "Notes on the distribution of Gold throughout the World, including Australia, California, and Russia;" and is embellished with four maps, clearly executed,—1, of the world; 2, Australia; 3, Bathurst to Sydney; and 4, California, on each of which the gold deposits are plainly marked in yellow colour. It is dedicated "To Sir R. L. MURCHISON, F.R.S., the President of the Geological Society; the man who, using the light of science, foretold to the English world the existence of gold in the Australian continent several years before the discovery of the precious metal was made public; who, living, has seen the realisation of his prediction; and who, throughout a life of scientific usefulness, has been ever ready to put forth his hand to uphold those who laboured in the task of popular instruction, and of scientific advancement." In it the gold question, generally, is most ably discussed, from the earliest periods when men bartered with each other; the effects of its discovery, and use as a circulating medium on society, through the times of VASCO DE GAMA and COLUMBUS, up to its obtaining in Russia, California, and Australia. The geology of gold is well described, according to all known facts, and the best practical and scientific opinions; the different systems of working carefully detailed; the gold monetary system considered; and the deposits in the several parts of the world described, illustrated by the above-mentioned maps. It is published at a very low charge, and comprising an epitome of all that history

has given us, and modern science elucidated, is within reach of, and should be read by, all who feel an interest in the subject.

There is one other circumstance to notice, on which we shall remark but briefly—the fact that nearly three-quarters of a million sterling are advertised to be raised for Californian and Australian gold-quartz rock crushing companies. Before embarking capital in such enterprises, we should (and we make the observation without the least wish to disparage legitimate undertakings) consider the position of the parties forming the company which we are about to join, the validity of the lease, whether from Col. Fremont or others; and even if valid, what will be the effect of the competition of thousands of independent seekers at little expense, over an extent of open territory of 1000 square miles, producing gold in the Sierra Nevada alone. It is a well known fact, that companies, properly carried out, can do here what individuals cannot attempt, but the question may be very different in the wild, unpopulated, and as yet but ill-regulated state of California. We shall, most probably, return to the subject in our next.

#### ISTHMI OF PANAMA.

Our readers will infer, from our former remarks, with what pleasure we are now able to announce that the long-contemplated and great project for uniting the Atlantic with the Pacific Oceans is about to be realised.

We are free to allow that a mixed communication by railway and canal, as heretofore proposed, and we believe in part carried out at present, is a step in the right direction; but yet it must be admitted that such a mode of transit, with all its incidental inconvenience and risk, falls far short of the requirements of the great traffic passing around Cape Horn. We have good authority for stating that nearly 30,000,000 tons of shipping annually pass around the Horn. This fact of itself would obviously justify an outlay of many millions sterling to cut down and remove the barrier of the Isthmus of Panama, which at present necessitates the circuitous course around South America.

We believe that this work, great and important as it is, could not be in better hands than those of the eminent parties who are now engaged with it; and it must be almost unnecessary to add that we shall always be happy to afford them all the aid in our power.

#### ON THE SEPARATION OF THE OXIDES FROM ALLOYS OF COPPER AND ZINC.

M. Rivot, director of the laboratory of the School of Mines in Paris, and M. Bouquet, of the Assay Office, having been instructed to make a great number of analyses of samples of brass, were led to make experiments on the separation of copper and zinc, and they have proved that sulphuretted hydrogen cannot give a satisfactory result. When operating in a liquor not very acid, sulphuretted hydrogen precipitates almost all the zinc at the same time as the copper in the state of sulphurets; when very acid, there is always a considerable portion of sulphuretted zinc carried away with the sulphuretted copper. From these experiments it resulted that if the precipitates given by sulphuretted hydrogen are dissolved in nitro-hydrochloric acid, and the copper precipitated in the state of oxide by potassa in the liquor previously rendered ammoniacal, very accurate data are arrived at as regards copper. The process was a modification of that of M. Vauquelin; brass is dissolved in nitric acid, precipitating the solution when cold in a close vessel by potassa, saturating the filtered liquor with sulphuric acid, and precipitating the zinc by carbonate of potassa. This gives good results, but M. M. Rivot and Bouquet found it advantageous to precipitate the oxide of copper by means of potassa, only after having rendered the liquor ammoniacal. The oxide of copper then does not contain oxide of zinc or potassa, whereas in operating on a non-ammoniacal liquor it is almost impossible to remove all the potassa from the oxide of copper by even prolonged washing in boiling water. The precipitation of the oxide of copper by potassa in an ammoniacal liquor takes place very well at a temperature varying from 158° to 176° Fahr.; if a higher temperature be employed it attaches powerfully to the sides of the vessel, and it is necessary to re-dissolve in an acid, and precipitate *de novo*. It is also necessary to operate only on dilute liquors, and not to employ too great an excess of potassa; in concentrated liquors, or with an excess of alkali, the oxide of copper obtained retains with tenacity a larger proportion of potassa.

#### ON THE SLATE ROCKS OF CORNWALL AND DEVON.

BY PROF. SEDGWICK, F.G.S.

In a paper read at the Geological Society, on the 5th inst., the author, referring to observations previously made, particularly in 1836, by Sir R. I. Murchison, and himself, explained that the sedimentary rocks of Cornwall and Devon are arranged as follows:—

1. The culmiferous rocks or culm measures (equivalent to the coal grits of South Wales), occupying the west of Devonshire, form a trough, the parallel sides of which extend from Hartland Point to beyond Bampton, on the north; and from Laseath to the south of Exeter on the south, interrupted, however, in this southern edge by the great granitic mass of Dartmoor.
2. The calcareous slates of Barnstaple, and the sandstones of Charwood and Boggy Point, underlie the culm measures on the north, and are represented along the south edge of the culm-rocks by the limestone and fossiliferous slates of Petherwin, and, forming with the latter the "Barnstaple or Petherwin group" constitute the upper part of the "Devonian system." These appear to be the equivalents of the "carboniferous slates" of the south of Ireland.
3. The "Dartmouth group," or middle Devonian, appear on the north as the unfossiliferous slates and coarse grauwackes of Morte Bay, and on the south of the culm trough as the unfossiliferous slates of the Dartmouth district.
4. The oldest or "Plymouth group" of the Devonian series is well marked on the north by the limestone and sandstones of Linton, and the north coast, and on the south by the fossiliferous slate rocks of the "Liskeard group," and the limestones and sandstones of the Plymouth district. These rocks, although very greatly distorted by the extensive granitic slopes of Devon and Cornwall, exhibit considerable symmetry in their arrangement with respect to each other and the granitic rocks, dipping from the protruding granite in a symmetrical form, and, where free from the disturbing influence of the latter, exhibiting an approximate parallelism of strike. The author next proceeded to describe a series of slate rocks to the south of the granitic mass north of St. Austell, and occupying Dodman Point and Nare Head. These rocks afford fossils of the Lower Silurian (Cambrian) age, as lately noticed by Sir R. I. Murchison. These strata, having a general southerly dip, and a strike north-north-east, south-west, appear to overlie the Devonian slates of Vergan. This position, however, the professor considers to be probably due to the disturbing influence of an axis of elevation parallel with the south coast, which has inverted these older rocks. The author concludes by observing, that probably the altered slates near the Lizard, and the metamorphic slates of Bolt Head might be regarded as indications of ancient strata formerly existing about the site of their promontories. Deposits of Silurian or Cambrian age appear to have had a limited extent only, as indicated by the local series referred to above. The three great groups of the Devonian series successively followed, and subsequently formed an elevated tract of land, on which grew the ancient flora, now represented by the fossil plants of the culm measures that repose on the Devonian rocks. After came a period during which the great granitic axis was elevated, disturbing with its three protruding masses of St. Austell, Bodmin, and Dartmoor, the Devonian and culmiferous rocks along the southern edge of the latter. Contemporaneously with this, another axis elevated the corresponding rocks along the northern edge of the culm series. Lastly, we have indications of a third elevatory axis, probably coeval with the former two, ranging along the south coast of Devon and Cornwall, and previously noticed as being probably connected with the elevation and inversion of the Cambrian or older Silurian rocks of Dodman Point and Nare Head.

CUSTOM OBSERVED AGAINST DEFAULTERS RESIDING OUT OF THE JURISDICTION OF THE ROYAL STANNARY COURT.—The purser of West United Hills Mine having obtained a rule for the sale of the shares belonging to the Rev. J. Heathcoat Brooks, residing at Chipping Norton, for arrears of call 1011. 5s., service of decree was affixed at the principal shaft of the mine, and the defaulter being non-resident in the county, notice thereof being sent to his address by post was allowed.

COPPER.—The *Lake Superior Journal* of the 29th Oct. says that the propeller *Peninsula* left Saut Sainte Marie that morning with one of the largest freights of copper ever shipped from the country, having from the Cliff Mine 80 tons, in masses and barrels; from the Minnesota, 50 tons, mostly in masses; from the Peninsula, 1 ton, one mass, and two barrels. Included in the large lot of masses from the Cliff Mine were six enormous pieces, one weighing 6070 lbs., and five weighing over 5000 lbs. each. The largest piece weighed 990 lbs. more than any mass ever before sent out of the country.

A great crowd was attracted, on Sunday evening last, to the Great Western Station at Cheltenham, to see the arrival, as announced by placard, of "the newly invented powerful locomotive propeller, the *Hercules*," which was to work without the aid of steam. This, we need scarcely say, was a hoax.

#### Original Correspondence.

##### MINERAL WEALTH OF NORTH YORKSHIRE.

SIR,—It may not be generally known to your readers that whilst a far-off country, called California, excited, for a certain time, the most extraordinary sensation we ever remember to have heard, for its valuable mineral productions, and now our ears are again startled with the news that "shepherds are leaving their flocks, and seamen with landmen are hastening" at the very antipodes to a gold-producing district, our countrymen are silent and asleep to the capabilities of Old England—justly entitled to our first consideration. We may, therefore, state that North Yorkshire, so long looked upon as a place only celebrated for its wild moorland localities, with here and there a few beautiful sequestered valleys, is now about to come out in prominence, as also one of the richest and most valuable portions of this empire. We mean not in gold abstractedly, but, what is of more worth in national importance, hard stern iron, or rather stone, for its production.

A seam of ore, varying from 10 to 17 feet thick, and in some places even thicker, has been discovered along the line of hills on the lower chain, commencing at Lofthouse Alum Works, extending to Easton Nab Beacon, where it is now worked by a firm at Middlesbro'-on-Tees, who are daily raising 800 tons and upwards from open quarry at the outcrop, to carry to their works at Witon and Middlesbro' to smelt, and also, for the supply of the very extensive works at Shottly Bridge, which latter company are also about to open a mine, from whence and Lofthouse (the property of our noble proprietor) they intend to raise 1000 tons daily. The second chain of hills, having the intervening valleys of Dale House, Shelton, and Gisbro', extending to the celebrated Roseberry Topping (the Ben Nevis of Cleveland), has also been found to have the same bed or seam of ore—the chief difficulty of arriving at which is about to be obviated by the construction of a branch rail to the Gisbro' Valley from the "Middlesbro' and Redcar," and now surveyed to lay before Parliament, which we are of opinion will produce results and developments of the utmost importance. An analysis has been made of the ore at the Polytechnic Institution, London, which has produced near 40 per cent. of metal, and where our friends in town may see a specimen any day—the subject of iron and metals forming a course of lectures delivered at that scientific institute. It is not our province to state in figures what such can realise as an investment to parties who understand the trade; but we are informed that on the opposite side of the River Tees there is coal and lime cheap, and in great abundance, with the harbour of Hartlepool for shipment, and Middlesbro' on the Yorkshire side—both first-class ports for accommodation.

It can only have arisen from the knowledge of such facts not being fully known that influential capitalists have not, with the wonted energy of Englishmen, come to the spot where it is evident to calculating parties we have talked with that in no place can iron be made so cheap. At the present time we are writing, the rattling wheels are taking from the Cleveland Mines the rough ore by rail above 50 miles to the furnaces. Surely, if any profit is made where an expense so large is incurred by carriage, what must result if worked where none such or only little is incurred, and every facility is granted by nature which can possibly be. To the reflecting and enterprising we must leave it, feeling assured that as the Great Architect of the universe has made nothing in vain, so now man will, when it is apparent such useful material is in existence, by his labour and industry, combined with scientific knowledge, bring out that which is clearly intended for his use.—JUVENIS: Cleveland, Nov. 18.

##### IRON PYRITES.

SIR,—I observe in your last Journal that Mr. Mitchell says, in a report on some minerals, that "Iron pyrites is employed in considerable quantities in the manufacture of sulphuric acid (the oil of vitriol of commerce); but there is well-founded objection to the use of acid made in this manner, for it always contains arsenic, a metal found in nearly all iron pyrites. In this sample, however, there is not a trace of that poisonous substance; therefore, the objection to the use of pyrites in the manufacture of sulphuric acid falls to the ground when a mineral free from arsenic can be obtained." I admit, with Mr. Mitchell, that the pyrites in question is good, and well adapted for making sulphuric acid, but having operated on some thousands of tons of iron pyrites in the making of that acid, I can affirm that the absence of arsenic is by no means rare, as I have found hundreds of tons quite free from it, which were obtained in Cornwall and some other counties.

Though I never could get the beach mudie (that which is picked up generally on the south coast of England) to exceed 46 per cent. sulphur, and, therefore, inferior to some of the iron pyrites that is raised in many of the Cornish copper mines; yet I much prefer it to the foreign sulphur of commerce, for two reasons,—one being, that it is not contaminated with arsenic, and, in fact, is very similar in composition to the pyrites in question, containing, by my analyses, sulphur, iron, silica, and carbon; but the last is not invariably present; the other reason being, that it is much more economical than Sicilian sulphur.—W. BIRKMYRE: Nov. 18.

##### COPPER SMELTING.

SIR,—Some well meaning friends have been kind enough to give a very fair exposition of my views upon some matters to which I attach great importance, and to which I wish to draw public attention. The plan for obtaining copper in "Pyrites" second letter, in the *Mining Journal* of the 8th inst., is such as I proposed to certain parties a few months ago, but which I have since greatly improved upon. The principle is certainly similar to that patented by Mr. Bankhart, but I think my *modus operandi* will be found to differ most essentially from that in practice at the Red Jacket Works, near Neath. I have, for the last three months, been nearly blind and incapable of active operations, which has afforded me leisure for the exercise of my ingenuity, and my studies have been almost exclusively devoted to copper. I have devised some new modes for applying gases, and for obtaining and treating solutions on a large scale. By the adoption of these, I shall complete a most perfect and beautiful process. The wet, or acid mode of operation, is decidedly the true principle for obtaining the entire quantity and purest quality of copper from sulphurets. I hope soon to satisfy your correspondent, Mr. Prideaux, on this point.

Nov. 18. T. H. LEIGHTON.

##### IMPROVEMENTS IN THE MANUFACTURE OF GAS.

SIR,—I felt surprised at reading in your Journal of the 1st inst. the article on the Manufacture of Gas, in which it is stated that Messrs. Barlow and Gore have invented a new system of making gas, and superseded all other parties who have patented gas upon the same system, including Donovan, Manby, White, and Webster. Now, as I happen to be one of the superseded, I trust I may be allowed to answer this bold assertion of Messrs. Barlow and Gore. It is stated that I have failed in the attempt to produce 15,000 cubic feet of good gas from one ton of Cannel coal—this is not true; and I beg to hand you the following names of places where I have had the pleasure of putting my apparatus down, and which is now at work daily, and is open to the inspection of any party who may think well to call and inspect it, and where any information which may be required will be given, both as to the quantity and quality of the gas:—

1. Messrs. Turner and Pegg, elastic web manufacturers, Hill-street, Leicester, where one of my apparatus, for 300 lights, is at work.
2. Messrs. Law and Bell's foundry, Charles-street, Leicester, where there is also one for 300 lights.
3. The Monastery, Charnwood Forest, Leicestershire, one for 300 lights.
4. Mr. Alderman Salomons, M.P. for Greenwich, Broom-hill, Tunbridge Wells, Kent, one for 100 lights.
5. Ratcliffe College, Leicestershire, one for 400 lights.
6. Messrs. Towgood's, St. Neot's, Huntingdonshire, two sets, for 400 lights each.
7. Messrs. Towgood's, Sawston, near Cambridge, two sets, for 400 lights each.
8. Mullingar Station, Ireland, one for 100 lights.
9. The Union, Leicester, where we are finding them gas at 2s. 3d. per 1000 cubic feet one for 500 lights.
10. The gas-works, St. Neot's, which I have altered to my principle.
11. The gas-works at Rugby, which I am now altering.

At the Rugby Gas-Works, I have been making a series of experiments, the results of which show that, while from 4½ cwt. of coals they were producing 1800 feet of gas upon the ordinary principle, with my patent process, on the 6th inst., from 4½ cwt. of coals, I produced 3000 cubic feet of gas; on the 7th inst., 3110 feet, and on the 8th inst., 3150 feet—making an average of 14,500 cubic feet per ton from common Derbyshire coal, commonly known as Stately coal.

I am quite prepared to give a guarantee to any gas company in England, or any other place, to produce 15,000 cubic feet of good gas from one ton of Cannel coal; and I avail myself of this opportunity of stating, that I am also quite prepared to alter the works of any gas company on these



terms:—"That if I do not produce the quantity above-mentioned, I will forfeit all the alterations and expenses which I may put the company to." This does not look much like a failure; and before my name is made use of again in your Journal, I shall thank the writer to prove in what place my patent has been a failure, and where I have put works down with which the parties are not satisfied at any of the gas-works, work-houses, or manufactories referred to. I am convinced that the parties in charge of the gas apparatus will do me the justice to answer any letter they may address them.—J. WEBSTER, Gas Engineer: Leicester, Nov. 18.

#### DR. LARDNER AND ATLANTIC STEAM NAVIGATION.

SIR,—In a new edition of Dr. Lardner's work upon the Steam-Engine, which has just appeared, a recapitulation is given of the leading points in the controversy on the subject of Atlantic Steam Navigation. As the question is thus brought once more before the public—as most erroneous impressions are prevalent respecting it, and as I am able, from my personal knowledge, to state the real facts of the case, I trust you will afford me sufficient space in your columns to set the matter correctly before the public. Most persons suppose that Dr. Lardner declared the passage of the Atlantic by a steam-vessel to be a physical impossibility; and if an example be needed to show how far the achievements of physical science may outrun the anticipations of scientific authorities, Dr. Lardner's supposed declaration is usually cited as a case in point. It happens, however, that Dr. Lardner entertained no such opinion as that usually imputed to him, but, in fact, maintained the very opposite. About the time of the meeting of the British Association in Bristol, in 1837, being then engaged in superintending the construction of the largest steam-vessels of that day—the *Don Juan*, the *Braganza*, and the *Tagus*, belonging to the Peninsular Company, I was applied to by Dr. Lardner to ascertain my views respecting the prospects of Atlantic steam navigation, and I then went with him, with some care, into the question.

It was, of course, obvious to us both, that for a steam-vessel to cross the Atlantic was perfectly possible. In fact, at least two steam-vessels, the *Savannah* and the *Curacao*, had crossed it already; and although it was doubtful whether any steam-vessel of that day could carry coal enough to maintain the full power of the steam during the whole voyage, it was clear, nevertheless, that any sea-worthy steamer could accomplish the voyage by adopting one of two alternatives—she might either proceed under full steam as far as her coals would last, and then conclude the voyage under sail; or she might pass through the whole distance under partial steam, working the engines with only a portion of their power, as had been repeatedly done by the *Medea* and other steam-vessels when sailing with the fleet. It was obvious to every one indeed, that the capability of a steam-vessel to carry coal for an Atlantic voyage hinged upon the amount of power put into her; or, in other words, it was a question of the proportion of power to tonnage—so that, by making the hull of the vessel very large, and the engines relatively small, a sufficient capacity for coal to enable the engines to be worked throughout the voyage would certainly be obtained. This abstract question, however, was not the one which engaged the attention of the public, or upon which it was necessary for Dr. Lardner to deliver any opinion. But three distinct projects were at that time before the public, proposing to connect England with New York by steam-vessels of large tonnage and power; and the problem presented for solution was, whether these undertakings—unassisted as they were by a Government grant, and relying wholly upon the returns from goods and passengers—would probably be successful. Dr. Lardner's opinion was that they would not, and in that opinion I concurred. No one was able to answer Dr. Lardner's arguments, but they were drowned by clamour, and he was represented as having given utterance to an absurdity, in order that the force of his reasonings might be the more effectually concealed.

For the moment this expedient succeeded. The three schemes, which had London, Liverpool, and Bristol as their European termini, were, contrary to Dr. Lardner's recommendation, established and tried. The result is exhibited in the following list, which shows the eventual fate of the vessels employed:—

<i>Sirius</i> .....	Withdrawn.	<i>British Queen</i> .....	Sold.
<i>Royal William</i> .....	Withdrawn.	<i>President</i> .....	Lost.
<i>Great Liverpool</i> .....	Sold.	<i>Great Western</i> .....	Sold.
<i>United States</i> .....	Sold.	<i>Great Britain</i> .....	Sold.

In fact, the whole of the enterprises, condemned by Dr. Lardner, have miscarried, and have been attended with loss and disappointment to all concerned.

The Cunard and American lines of packets being supported by large Government subventions, of course, do not come under the conditions Dr. Lardner had to consider, which were those of an enterprise subsisting only on its own returns; nor had his prognostications any reference to the class of auxiliary screw-vessels now plying across the Atlantic—that class of vessels having been unknown in 1836. His remarks had reference exclusively to paddle-vessels with full power; and since the whole of the vessels of that class, except those supported by extraneous aid, have been driven from the field, and since the Cunard line, notwithstanding the great ability with which it is conducted, requires a Government contribution of 145,000*l.* a year to enable it to be carried on, it appears certain that the doctrines Dr. Lardner promulgated in 1836 and 1837 are irrefragable still, notwithstanding the improvements which have since taken place in steam navigation. One by one the schemes he condemned have exploded: no one would now think of reconstructing them. Who, then, shall say that his anticipations have not been borne out by the result?

London, Nov. 15.

JOHN BOURNE, C.E.

#### THE ELEMENTS OF NATURE.

SIR,—I regret that Mr. Prideaux should still decline to discuss the subject under consideration before we had even fairly made a beginning. In my letter of the 7th Oct. last, I asked for an admission that there are only two figures, *per se*, known to the human mind. If this be not a fact, then my argument must necessarily end; but, if otherwise, we have safe and sure ground on which to proceed. However, as none of your able and scientific correspondents feel disposed to enter into a little fair discussion on the subject—and that upon mutually agreed data and conditions, but not antagonistically, for I abominably hate carping and cavilling on all subjects, more especially scientific ones, nor to "oppose or expose," in wantonness or ignorant vanity, as Mr. Prideaux, with good sense, candour, and courtesy, states in his note in last week's Journal, but to draw out and expand arguments and illustrations—why I suppose the business must stand over to some future day. Permit me, however, to make a few more remarks on the subject, in the hope and expectation that it is possible to so far connect heaven and earth, as it were, as to satisfy every rational mind that the supernatural things I have designated *spirit* and *matter* may be rendered manifest to human sense through the results of their combination.

In your last Journal you gave an extract, with diagrams, from Mr. Evan Hopkins's forthcoming work on *Terrestrial Magnetism*. Now, to reduce my abstract "Elements of Nature" into physical facts, nothing better could possibly have been contrived for that purpose than the diagrams alluded to. Here we have a view of the passive element of Nature—the basis of all earthly things, MATTER, surrounded and penetrated by the active, property-giving, and creative element, SPIRIT, whose directed action upon matter produced all earthly things in the beginning, and it will continue to create, destroy, and re-create, or transmute, all such things, until time shall be no more! By means of this wonderful action of *spirit* upon *matter*, (Mr. Hopkins has termed those elements "*geology and magnetism*")—a difference I consider to be in name only, we may, without violence to reason, which is science, arrive at pretty correct notions as to the formation and transmutation of metals, and the production of chemical compounds of every possible kind, as stated in my introductory paper of the 20th August last. Here is also the true origin of metalliferous veins and their contents clearly explained, as well as the cause of the northern and southern auroras, which have been so long a puzzle to philosophers and astronomers.

I do not profess to be much acquainted with the sciences of electricity, but have been told that the action of the electric fluid in a vacuum (such as man can obtain) will produce flashes of light, of various colours and intensities. Now, by fair reasoning, we may conclude the auroras to be produced by the action of the same fluid, or *spirit*, on the confines of the earth's atmosphere, where, from the rarity of the air, we have the same condition for its action as in a vacuum obtained by human means! And, moreover, we are told, from high authority, that the sneers of sceptics and cavillers—that in the beginning "The Spirit of God moved upon the face of the waters, and God said, Let there be light, and there was light." To me this is conclusive that *electricity* is the *spirit* or active element, which, at the origin of earthly things, moved and acted upon the face, outside, or superficies of the dark, void, formless, powerless, passive, and consequently property-less, element we conventionally call MATTER, the basis,

as before observed, of all earthly things; the result of its first action being light, and its unceasing, but scientifically directed, action upon more matter resulted in the terrene wonders and miracles constantly, in a manner, before our doubting minds. Now, from this first action of spirit upon matter, if we descend atomically we shall have—1. Caloric (perhaps *pyrogen* may be a better term; this, however, I will leave for Mr. Lake, or some other able electrician to settle).—2. *Airs*.—3. *Visible fluids*—and 4. *Solids*, so that platinum, the most dense body at present known, may be considered a combination of matter plus, and spirit minus; and light, the first result produced (and which, from necessity, ought to have been so), and the lightest of natural things, a union of spirit plus, and matter minus. But it is time to bring this letter to a conclusion, or it may encroach too far on the columns of your excellent and independent Journal; I will, therefore, do so by most unequivocally asserting that Mr. Hopkins's view of the formation and filling of mineral veins is both practically and theoretically correct, and his philosophy, on the whole, perfectly rational and unimpeachable.

Nantyglo, Nov. 4.

S. B. ROGERS.

P. S.—With respect to the weak and antiquated remarks of Mr. Norris F. Davey, in last week's Journal, together with the double-headed doubt with which he commences his extract from Sir Isaac Newton (to whom I am as willing as Mr. Davey to concede all due honours), I shall, not being, as before remarked, partial to "carping or cavilling," simply leave them to the "wild winds of heaven," and the following very apposite quotation from Mr. Evan Hopkins's able letter on "The Newtonian Physical Laws of the Orbits Questioned," and which immediately precedes Mr. Davey's communication above alluded to—viz.:—"There is nothing that betrays the weakness of an argument more than the use of improper epithets; and when these are accompanied by questions totally irrelevant to the subject, in a loose style, they may be considered as unworthy of notice, and offensive to the readers."

#### MACHINES OF THE EXHIBITION.

SIR,—I never accepted the promised wonders of the Great Exhibition in spreading peace and goodwill throughout the earth; there was, if not impiety, as much presumption as common sense in the delusion. I never believed that the dining of the Lord Mayor in Paris would seal in perpetuity the bonds of amity betwixt two nations; nor that the advent to our shores of some thousands of industrious foreigners, whose very works already proclaimed them lovers of peace and order, would cast a soporific spell upon the passions of the millions that remained behind—in short, that the teeming cauldron of continental strife and politics would have one ember drawn from beneath it by the great show of the present year. Delusive excitement, and some faith in the greatness of the results, were perhaps absolutely necessary to effect so great a gathering. Some believed, and more, though unbelieving, joined the throng, that they might not be deserted in the rear. To the majority, the recollection of the excitement is all that remains to compensate great expenditure and much disappointment. As ultimate results were so problematical, it was the more imperative that immediate acts should be governed by the golden rule—"To do justly and to walk uprightly," looking to the end, not leaning for excuse on the Heathen adage of the oppressor and the sycophant—"De mortuis nil nisi bonum," but remembering the truer proverb of our own great poet,

"The evil a man doth lives after him;

The good is oft interred with his bones;"

so that when the great face of the year had expired, its memory might endure with the fewest traces of shame or regret. No one will believe that even had omniscience and omnipresence been the gifts of those entrusted with the management and the awards that perfect satisfaction would have been the result; and, therefore, much more where human fallibility presided over such an unexampled mass of materials, distinguished often by the minutest shades of difference, mistakes and oversights were inevitable, and even less explicable acts—such as the rejection in Mr. Sim's case of the opinions of Sir David Brewster and Sir John Herschel—may have had a sufficient expulatory cause. But a more remarkable case has met my attention in the simplest and least numerous class of articles, in which of all others correct decisions were to have been expected and were demanded, because they affect a subject which has pre-eminently given this country its distinguished position among the nations. In the conduct of the department for steam machinery, it was confidently to be expected that all was fair—that "Samson had acquired himself like Samson," and the weighty importance of the subject would give an irresistible momentum in the path of justice.

Much as has been performed, it is, I believe, supposed by none that the application of steam in obtaining power has been carried to its ultimate perfection; on the contrary, the whole force of engineering talent has been constantly directed to supplying certain desiderata, and increasing attainable power by reducing to the minimum the weight and space of fuel and machinery. Had it been otherwise—had the acme by universal acknowledgment been gained, the clear course for the committees and juries would have been to award prizes solely for the best pieces of workmanship, because, when there was no room for novelty, it was impossible that a council medal could be granted on that ground; and it would be equally clear that the committees should discourage and reject all futile attempts, or models, pretending to a novelty which was impossible. It would have been a waste of the valuable steam generated in Hyde Park to supply it to nugatory pretenders, who merely did what had been already done, and a waste of space to admit models which, though very new, were useless, because every useful point had been before attained, and the construction of the steam-engine beatified in everlasting rest in the "highest heaven of invention."

But as this supreme felicity of design is not admitted to have been achieved by the body of engineers or engine-makers, and as they are not yet in the position of Alexander, to sit down and weep because there is nothing more to conquer, I purpose to call attention to some little improvements in this not yet perfected machine, which were sent, according to the spirit in which the building was designed, for the Exhibition, and the encouragement of such improvements, but which, by some mistake, was eminently discouraged, and not exhibited. When the general report is published, we may perhaps read the reasons for such a course; but as it is a case in which the public has suffered fully more than the inventor, it is but fair to sketch out beforehand the nature of the facts which have to be explained, as an assistance to the explanation, giving the fullest amount of credit for the commercial talents of the chief manufacturers of steam-engines, and the excellence of the articles turned out of their establishments; and, further, if they require it for their philosophical appreciation of the principles which they manufacture into items of trade, there are, nevertheless, thousands of persons who employ steam-power for navigation, locomotion, or stationary purposes, who can thoroughly appreciate, as correctly as the maker, the practical duty of the machine, its defects and its requirements; and there are hundreds of workmen equally competent as their masters to understand every practical detail, and judge what is an improvement; and if it shall appear that either by ignorance, intention, or inattention, the makers of engines have deprived the users of engines of a great public opportunity of witnessing in operation a complete system of combinations, which supply all the desiderata which the users of engines throughout this century have been searching for, there remains a slur upon that department of the great show which demands every effort to wipe away; for if a prominent point in the future history of the improvements of our stupendous agent shall be that a most notorious stop in advance was not appreciated, was discouraged—nay, was treated with studied injustice when brought up to the bar of nations, and no plea put in against it, then will the glories of the great display be indelibly recorded by nothing so much as by the stain upon their memory.

Nov. 10.

DAVID MUSHET.

#### ATMOSPHERIC INFLUENCES—NEW SERIES.

SIR,—The statement contained in No. XIII. of the amount of coal consumed in the world, must not be regarded as the actual quantity. Prof. Ansted informed me, in a conversation I had with him, in reference to that statement, that there was much produced in Nova Scotia and elsewhere, but not being aware of the exact amounts, he had not given them. Coal is used in Australia both as fuel and for the manufacture of gas, but to what extent I do not know. It will be observed, on reference to my paper in the *Chemist* of 1847, that I take no account of the amount of ammonia generated from other sources than the combustion of coal; but on the lowest estimate of 2890 grs. of carbon consumed in respiration by an adult per diem, the human family of 1,000,000,000 must alone consume annually about 70,000,000 tons. Dr. Ure gives 46,000 cubic inches of oxygen for the consumption of an adult, equal to 15,180 grains; which corresponds to 5613 grains of carbon, or double the amount—a discrepancy that certainly ought not to exist, since nothing could be more easy,

with proper appliances, than to determine the exact amount of carbonic acid generated, and nitrogen evolved, by half-a-dozen men, placed in an air-tight chamber; and similar results might be obtained from horses and other animals, placed in a properly-constructed box, which would answer every purpose—information that is indispensably requisite as the groundwork for a proper system of ventilation, and should unquestionably be afforded by the Government.

Much iron is made with charcoal, and wood constitutes the principal article of fuel on the continent, but to what extent is not known. On this point also, with very little trouble, much valuable statistical information might be collected—it being an unquestionable fact that, whilst we are liberating annually a vast amount of carbon to the atmosphere, and which finds its way to the soil, by the progressive increase in the human family, we are gradually making inroads on the forests. That the demand for coal will continue on the increase until some other power than steam be obtained, is beyond a doubt, but at least, as rational beings, we should investigate the consequence, in order to determine whether some remedy cannot be devised for the evils we may create. FRANKLIN COXWORTHY, Author of *Electrical Conditions*. Canterbury-place, Lambeth-road, Nov. 17.

#### AGUA FRIA MINING COMPANY.

Among the gold mining speculations which are now before the public, this company deserves especial notice, inasmuch as it is the only English association whose works have been surveyed, and on which a detailed report has been issued. The property is situated on the river of the same name, about 85 miles from the city of Stockton, to which place vessels of 400 tons can navigate, and between which and San Francisco there is almost daily communication by steam-packets. The property was surveyed and examined in October, 1850, by an eminent American mining engineer, Capt. W. A. Jackson, of Virginia. Openings were made by a cross-cut of sufficient depth to test the size of the vein and richness of the ore; the vein appears to be of nearly uniform thickness, of 34 to 44 feet, and its direction a few points to the north of east, the inclination of the vein being about 45°. Of the ore some specimens were transmitted to the United States Mint in January, 1851, and the report of the assays then made showed that 277 lbs. of ore produced 173 ozs. of gold, of the value of upwards of 650*l.*

In the month of May some of the quartz was brought over here and submitted to the inspection of the direction of the Bank of England; three different specimens, weighing in the aggregate 24 lbs. 2 ozs. 2 dwts., produced gold to the value of 272*l.* 2s. 7d. The ore has likewise been assayed by Messrs. Johnson and Matthey, and, according to their report a weight of rock of 5 lbs. 4 ozs. 18 dwts., yielded 1 lb. 4 ozs. 12 dwts. of gold, or a value of 63*l.* 1s. 10d., less the expenses of separation. Another analysis of the quality of quartz rock taken from the Agua Fria Mine has been analysed by Professor Ansted; according to his investigations of three specimens, of the aggregate weight of 42 lbs. 14 ozs. 138 grs., the estimated weight of gold was 24 ozs. 300 grs., of the estimated value of 90*l.* 17s. 3d.; this gives the mean specific gravity of the three lumps, 2695*l.*, and the mean value about 42s. 6d. for every pound weight of ore, and therefore a value of 4750*l.* for the ton. The contents of the vein running through the property, which is about 600 feet in length, and crops out on a hill, rising about 150 to 200 feet above the level of the Agua Fria Creek, is estimated at about 18,000 tons of ore to the water level only—how far it may descend below is not at present known.

The lease we have seen, signed by Col. Frémont, as well as the specimens of quartz, all more or less impregnated with the precious metal; these bear indubitable evidence of having been broken from the rock, and there is no doubt in the same locality large masses exist of the same average quality.

We have received a long, and we may add, very able letter, from our correspondent, "Argus," in reply to Mr. Murchison, in last week's Journal. We have no wish to provoke a correspondence between these two gentlemen—whose only object, that of promoting legitimate mining, is the same, though they may each imagine a different course should be pursued to attain it. Mr. Murchison, and other of our correspondents, are wrong in supposing that the efforts of "Argus" are directed to the discouragement of all new adventures; he wishes only that capital should be expended in such as are deemed probable, by competent judges, of proving productive, and making ample returns for the risk and necessary outlay. With his experience of the melancholy results of rash speculation in former periods, "Argus" is, perhaps, somewhat "over cautious," lest such calamity should again befall, and act discouragingly on the efforts of those engaged in the prosecution of legitimate mining undertakings.

We subjoin the concluding portion of the letter of "Argus":—"I am opposed to the idea that 800,000*l.* per annum additional capital could be advantageously employed in mining for copper, tin, and lead. I maintain that any such yearly sum would inevitably ruin most of those now in operation, throw down the price of metal, increase the charge for mining materials and labour, and in two years (if not sooner) defeat its own object, by a general panic and abandonment of the mines; an excess of produce must depreciate its marketable value. I have been connected with those three metals long enough to have seen them frequently suffer from such cause. Greater and more frequent would it be if a larger capital were employed, and the mines yielding a considerably augmented quantity of ore. The present price is neither too high nor the demand so brisk as we could wish at this moment; it will be well if we do not retrograde. The price has fluctuated much within the last seven years, as it has in every other seven during my mining pilgrimage, and I have witnessed the abandonment of many mines in consequence, seen them put to work again by a fresh party, and again abandoned in consequence of the lowness of price obtainable for their produce. Some are now working again, but several have never recovered the first shock. I, therefore, repeat that, should success bring, say only 100, out of the 317 mines on your second list, into such a productive state as the weekly reports would intimate them capable of (though they bring at present so little), down must go others that are struggling even to keep themselves afloat."

CONDIE'S STEAM-HAMMER.—It may be remembered by our readers that about 1847 we noticed a new steam-hammer, patented by Mr. Condie, of the Govan Iron-Works, which was in reality Nasmyth's hammer reversed—a moving cylinder on a fixed piston being the hammer, instead of the latter being connected to the lower portion of the piston-rod working in a fixed cylinder. We understand that some improvements have recently been made in several details, such as the standards being cast with high Gothic openings, to give the men free access to the anvil, and in some trifling alterations in the valve gear. A new hammer has been ordered by T. Michiels and Co., of Eschweiler Aue, near Aix-la-Chapelle. It stands 14 ft. high, with a hammer 30 cwt., and a 3 ft. 4 in. stroke; it is for forging anchors, shafts, and other heavy portions of machinery. Mr. Condie is also constructing two other hammers, of the respective weights of 50 cwt. and 10 cwt.

IRON FOR PAVING PURPOSES.—In the *Mining Journal* of 16th August last we noticed that Messrs. Allan, of Springbank Iron-Works, Glasgow, had patented an iron pavement, which was tested for some months at their own works when we expressed ourselves that however they might stand slow heavy traffic, we feared they would not stand the rattling of omnibuses, cabs, and other street traffic, and in the next Number we inserted a letter from the patentees requesting us to suspend our judgment until trial had been made. We understand a piece of the pavement has been laid down at the top of Montrose-street, in Stirling-road, and so far has answered expectation. The blocks of iron are about 3 in. wide, and the same in depth, and are laid about an inch apart to give a foot-hold to the horses. There is stated to be but little noise; but time alone can test its economy. We wish the patentees every success, as it is an emanation of the true spirit of this iron age.

NEW STEAM PLOUGH.—Mr. James Usher, of Edinburgh, has recently constructed a locomotive plough, which was tried in a field at Bargholm, about two miles from the city. The machine is shaped somewhat like a locomotive, and the novelty consists of mounting a series of ploughs in the same planes round an axis, which coming in contact with the earth act successively, and by their action propel the vehicle similar to the paddles of a steam-boat in the water. They are fixed to the back of the machine in a circular form, and are capable of raising the soil from 5 to 94 inches at the pleasure of the person in charge. It is 5 tons weight, and 10-horse power; 1 ton of coal propelled it more than eight hours, and the experiment, for a first, was quite successful.

RAILWAY IMPROVEMENTS.—Mr. D. Dalton, of West Bromwich, has patented some improvements applicable to railways, which consist of various constructions and combinations of rails, and longitudinal iron bearers and sleepers, to be laid end to end on the ballast, so as to form in effect firm continuous iron bearings and rails. The drawings exhibit various forms of rails, H, T, and U shaped, combined with wrought or cast-iron longitudinal sleepers, and secured by keys, or bolts and nuts, the sleepers being in every case made of forms adapted to the particular method to be employed of securing the rails. The sleepers or bearers for bridge-rails, when of wrought-iron, are rolled, and when of cast-iron, are cast with a hollow central rib or longitudinal projection, which fits into the hollow of the rail; and the rail may be secured to them by vertical bolts passing through the flanges on the edges of the rail, or by horizontal bolts through the rail and the rib of the longitudinal bearer. The gauge of the line is preserved by tie-rods, in the usual manner, and the rails and bearers must be laid so as to break joint with each other.



**WEST WHEEL JEWEL MINING ASSOCIATION.**

At a SPECIAL GENERAL MEETING of shareholders, held on Monday, the 17th November, at the offices of the Company, Old Broad-street, City.

**JAMES HERRON, Esq.,** in the chair.

Mr. Nicholson (the Secretary) read the notice convening the meeting from the *Mining Journal*—it being called for the purpose of rescinding the resolution passed at the meeting held on the 3d of June last, and to propose, in lieu thereof, to raise the required capital upon the existing shares—when it was

Proposed by Mr. Mackay, and seconded by Mr. J. Y. Watson.—

That the resolution passed at a Special General Meeting, held on the 3d day of June last, for raising additional capital, by the issue of preference shares, shall be rescinded. Carried unanimously.

Proposed by Mr. Wilson, and seconded by Mr. Torkington.—

That the Directors be, and are hereby, requested to call a Special General Meeting of shareholders forthwith, for the purpose of dissolving the Company.—Carried unanimously. The usual thanks being voted to the Chairman, the meeting separated.

**WAT CALLINGTON MINES.—At the FIRST GENERAL MEETING of the shareholders in this mine, held at Gregory's Hotel, Cheap-side, on Wednesday last, the 19th instant.**

**STEPHEN BROAD, Esq.,** in the chair.

The Chairman, after having read the notice convening the meeting, called on Mr. Gregory to read the prospectus and the report of A. Dean, the engineer to the Company. It was then moved.—That the same be allowed, and entered accordingly.

Moved by Mr. Dare, and seconded by Mr. Lynch;

Resolved.—That the Secretary's report be received.

Moved by Mr. Molyneux, and seconded by Mr. R. W. Dare;

Resolved.—That the balance-sheet be received and adopted.

Resolved.—That the committee be re-elected, and that Messrs. McLean, Lynch, France, and Dr. Sergeant, be added to the number.

Resolved.—That Mr. Mannell's appointment as secretary be confirmed.

Resolved.—That the rules now read be adopted.

Resolved.—That the best thanks of the meeting be given to the Chairman, for his able conduct in the chair.

**R. C. MANUEL, Secretary.**  
36, Austinfriars, Nov. 19, 1851.

**EXMOOR ELIZA MINE.—At a MEETING of shareholders in the above mine, held at the Queen's Head Inn, Tavistock, on Tuesday, Oct. 28, JOSEPH EDGUMBE, Esq., in the chair.**

A statement of accounts was produced, which exhibited a balance against the Company, when all calls are paid, of £20.

Resolved.—That all shares on which the calls remain unpaid be now forfeited to the Company. The Purser to give notice that if the calls are paid to him within 14 days from the date of the circular accompanying these resolutions, the restoration of such shares will be considered at the next general meeting.

The reports of the two inspectors, together with that of Capt. Moore, having been read and attentively considered, it was

Resolved.—That they be printed and circulated among the shareholders, and that a sufficient call be proposed at the next general meeting, for the purpose of carrying out with spirit the recommendations therein contained.

Resolved.—That the 60 unappropriated shares out of 1024 be offered for sale to the public. Application to be made to the purser, at Tavistock, or to Philip Hare and Co., 36, Mark-lane, London.

Resolved.—That the purser give notice in his circular convening the next general meeting that all shares on which there shall be any arrear of calls whatever will then be forfeited.

Resolved.—That an efficient pitman be appointed at a salary of £2 per month, in addition to his pay for ordinary labour.

Resolved.—That the services of Captain Moore be considered at the next general meeting, with a view to an increase of salary.

Resolved.—That the appointment of Mr. W. A. Palmer as purser, in room of Mr. Chant, resigned, be confirmed, at a salary of three guineas per month.

**JOSEPH EDGUMBE, Chairman.**

Resolved.—That the best thanks of the meeting be given to the chairman for his services this day.

**EAST MARIPOSA GOLD QUARTZ MINING COMPANY, CALIFORNIA.**

PROVISIONALLY REGISTERED, PURSUANT TO THE 7 AND 8 VIC., CAP. 110.  
Capital £150,000, in shares of £1 each.

Payable on allotment, and the Company's Deed will protect the shareholders from any further call or liability.

**DIRECTORS.**  
**LORD WALTER BUTLER**  
**WILLIAM HAMILTON, Esq.**  
**NICHOLAS VAL MAHER, Esq., M.P.**  
**PIERCE SOMERSET BUTLER, Esq., M.P.**  
**WILLIAM DUNBAR, Esq.**  
**ROBERT ANDREW RIDDELL, Esq.**

To be appointed by the shareholders at the first general meeting.

**STANDING COUNSEL.**  
**Henry Cory, Esq.,** New-square, Lincoln's Inn.  
**William Llewellyn Terry, Esq.,** Middle Temple.

**BANKERS.**  
The London and County Bank.

**BROKERS.**  
Liverpool.—Messrs. Henry Davies and Co.  
John Sebright May, Esq.  
Leeds.—Messrs. Barff and Platt  
Edinburgh.—Messrs. T. W. Flint and Co.  
Bristol.—J. K. Thomas, Esq.  
Halifax.—Messrs. Mewburn and Blakey.

**Paris.**—M. Edgar Aime.  
**RESIDENT AGENT IN CALIFORNIA.**—Matthew Clarke, Esq., C.E., Mariposa City.  
**SOLICITOR.**—John Thomas Moss, Esq., 12, Gray's Inn-square, London.  
**SECRETARY pro tem.**—George Cole, Esq.

**OFFICES.**—No. 3, LOTHBURY, LONDON.

This company has been formed for the purpose of working a most valuable tract of land on the eastern branch of the Mariposa river, which has been already sufficiently explored to warrant the directors in bringing the undertaking before the public without further delay, although the working operations will not be commenced until the receipt of further advice from the company's resident agent. The rich character of this district has so well known that it appears needless to encumber this prospectus by describing it; and the directors will not attempt to give an estimate of the amount of profit expected to be realised, inasmuch as any statement of that nature must of necessity be purely conjectural, and, therefore, only calculated to mislead the public. At the same time, the directors of this company confidently believe that it will be found second to none of the enterprises which have been entered into with the same object in view.

For the protection of the shareholders this company has been registered under the Joint-Stock Company's Act, and the directors of this company take this opportunity of assuring that the value of the security afforded by registration—where the shares are, in this case, held up on allotment—would appear to be so securely appreciated by the public, judging from the numerous companies attempting to obtain favour by professing to work under the Cost-book system; but the directors cannot recommend the shareholders of this company to work a mine in a foreign country on the Cost-book Principle, in consequence of the very grave doubts that exist both as to its legality and practicability. The promoters of this company have, through their legal adviser, sought the opinion of the Registrar-General of Joint-Stock Companies, on this subject, as will appear by the following correspondence:—

12, Gray's Inn-square, Holborn, London, November 11.

DEAR SIR.—Will you kindly favour me with your opinion as to whether a company can be legally formed in this country for working a mine in California on the Cost-book system, or whether it must be registered under the 7 and 8 Vic., cap. 110? Your early answer will oblige.

Yours faithfully,  
**JOHN THOMAS MOSS.**  
F. WHITMARSH, Esq., Q.C., Registrar of Joint-Stock Companies, Serjeant's Inn, Fleet-st.

I am of opinion that the company must be registered. F. WHITMARSH, Registrar.

The Deed of Settlement will secure the subscribers from the possibility of any further call or liabilities whatever, after the payment of the capital sum of £1 per share, which will be invested in the names of trustees, until required for working.

Applications for shares may be made in the accompanying form, and addressed to the Secretary or Brokers of the company, but no notice will be taken of any applications which do not contain references of respectability.

**TRURO TIN SMELTING COMPANY.**

Capital £25,000, in 10,000 paid-up shares of £2 10s. each.  
TO BE CONDUCTED ON THE "COST-BOOK" PRINCIPLE.

No further call can be made, and certificates will be issued to secure the shareholders against any liabilities.

**BOARD OF MANAGEMENT.**  
**JAMES ALEXANDER DOUGLAS, Esq.,** Russell-square, Chairman.  
**JOSEPH DUNNING, Esq.,** Drayton Grove, Old Brompton.  
**Captain T. FARIS, Esq.,** Lawn Villa, South Lambeth.  
**JOSEPH GIBBS, Esq.,** C.E., Pentonville.  
**EDWARD HOARE, Esq.,** Rothfield, Maidstone, Kent.  
**MARTIN STUTLEY, Esq.,** Cambridge-terrace, Regent's-park.  
**MATTHEW FRENCH WAGSTAFFE, Esq.,** Walcot-place, West Lambeth.

**ANDREW JOSEPH BUDWORTH SHARP, Esq.,** Gibson-square, Islington.  
**LONDON BANKERS.**—The Commercial Bank of London, Lothbury.  
**COUNTRY BANKERS.**—The Miners' Bank, Truro.

**SOLICITOR.**—T. J. Mawe, Esq., No. 4, New Bridge-street, Blackfriars.

**METALLURGIST AND MANAGER OF WORKS IN TRURO.**—Mr. Samuel Moyle, Bosvigo.

This COMPANY is ESTABLISHED for the purpose of SMELTING TIN ORES—a process yielding large returns, when conducted, as this will be, with all the advantages of modern scientific knowledge, ample capital, and economical management.

A Smelting Company, based on such principles, presents advantages of a peculiar and almost exclusive character. Proposals for public undertakings are generally supported in their origin by views of advantage mainly speculative, resting upon vague and unproven estimates, whether as to cost or returns, and resulting frequently in disappointment and loss. Smelting operations are, however, more certain—the cost and value of the raw material, the ore, is accurately known by the experienced assayer; every item of expense, in its conversion into blocks, ingots, or bars, is matter of well-defined and correct computation; and the current price of the manufactured article is a subject of public notoriety.

Arrangements have been already made for commencing operations without delay. A tract of one of the most complete and best-situated Tin Smelting Works in the county, in the neighbourhood of which several thousand pounds have been expended, having been secured on very advantageous terms. These works are most eligibly situated in the town of Truro, and in the centre of the great tin district of Cornwall, and are alike convenient for the land and water carriage.

For shares, and any further information, application may be made at the Temporary Offices of the Company, No. 16, Finner's Hall, Old Broad-street; or to the several shareholders in the principal towns of the United Kingdom.

**TO THE COMMITTEE OF THE TRURO TIN SMELTING COMPANY.**  
GENTLEMEN.—I beg to apply for shares in your Company, and on your terms, with my request, or so much of it as you may accede to, I agree to pay the sum of £2 10s. per share to the Bankers of the Company, immediately on receiving a notice of allotment, in accordance with the rules of your prospectus.

1851.  
Name..... Address..... Reference.....

**CREEVELEA COAL AND PEAT CHARCOAL IRON COMPANY.—ON THE COST-BOOK PRINCIPLE.**

Capital £30,000, in shares of £1 each—all paid.  
The Smelting-Works are now in progress of erection. The Assays of the Ores and the Estimates of the cost of making Charcoal Iron, &c., hold out a speedy prospect of large returns.

Applications for prospectuses and shares may be made to Mr. John Halse, 15, Finch-lane; and the offices of the Company, 28, Parliament-street, Westminster.

**TEMPLELYNE MINING COMPANY, COUNTY WICKLOW.**

PROVISIONALLY REGISTERED UNDER 7 AND 8 VIC., CAP. 107.  
The above SULPHUR and COPPER MINE is situated near the village of REDCROSS, within about two miles of the sea, on the fee-simple estate of Wentworth Esq., who leases to the Company the royalties of 100 acres of the lands of Templelyne for 40 years, at a royalty rent of 1. 18th, and grants a right of search over 5000 acres, all situated in the neighbourhood of the new working mines, and containing, in numerous places, the most promising indications of copper and sulphur, with abundance of rich iron ore on the surface.

The capital of the Company consists of £10,000, in 5000 shares, of £2 each, with power to increase their number.

Parties desirous of taking shares in the above concern will please apply to J. H. Dunne, Esq., solicitor for the promoters, 59, Angier-street, Dublin.

**BISHOPSTONE SILVER-LEAD MINES, GLAMORGANSHIRE, SOUTH WALES.**

In 2000 shares.—Enlargement of capital by the issue of reserved shares.  
These MINES are in full OPERATION, having been started by a limited proprietary, who hold 1200 shares, on each of which £4 has been paid—300 are free shares; the issue of the remainder having been reserved until the present time.

The committee, acting upon the advice of Evan Hopkins, Esq., C.E., and Capt. Matthew Francis, who have inspected the mines, are now prosecuting the works with the utmost vigour; and as additional capital will probably be required, have determined to issue the 800 reserved shares to respectable parties, on the payment of £1 per share, and a like payment every two months, until £4 be paid, so as to place all the shares in the same position.

Prospectuses, with full particulars, copies of the reports of Evan Hopkins, Esq., and Capt. Matthew Francis, together with a register of the present proprietors, may be had on application to J. B. Balcombe, Esq., stock and sharebroker, No. 19, Royal Exchange, London.

**MENAGUINS TIN AND COPPER MINE.**

GENERAL REPORT.

The following WORKINGS have been done:—  
1. The whole set—1 mile long—costed and 1 lode opened.

2. An exploring adit driven north-east 150 fathoms, opening a lead lode and copper lode; a shaft sunk near the latter, 40 fathoms deep, and cross-cuts extended at the 20 and 30, exploring the lode and opening bunches of rich black ore. This lode is very promising, and can, with an intermediate lode, be ultimately worked from the central lodes, and will form a valuable adjunct thereto.

3. An exploring adit from the north-west corner of the set, to unwater and prove six copper and tin lodes, passing through the table land on the hill—one of which is the famous Great St. Martin's lode. These lodes are situated within a compass of 90 fathoms, and are intersected by a caunter lode, 5 feet wide, and well impregnated with copper ore. No. 1 has been opened at a depth of 25 fathoms, and contains a very rich gossar, with spar, munda, and spots of copper, is nearly 2 feet wide, and as promising a lode as could be wished. The other five lodes will be cut at from 30 to 35 fathoms deep. The adit has been extended 180 fathoms, and the next lode is 14 fathoms a-head. Several rich bunches of black and grey ore, and one copper lode, have been passed through.—This feature of the mine is in itself of great value.

4. An exploring adit from the north, with levels about 100 fathoms, opening three large tin lodes, and a tin caunter—one of these is the celebrated Downright, or Old Polgooth lode.

5. An engine-shaft, 35 fathoms deep, sunk between the Great Downright lode and the north lodes—cross-cuts extended at the 25 and 35, and levels driven on the Downright lode, opening some valuable bunches of tin. The winze between the 25 and 35 is worth £15 per fathom—the average produce being 64 cwt. per 100 sacks. The west ends are now worth £10 and £14 per fathom.

6. A new 30-inch cylinder engine, 40 fathoms of 11-inch pumps, a 20 fathom 18-inch plunger, a 10 fathom 18-inch drawing lift, and various other materials, have been supplied, while calls equal to £7168 have been paid—leaving a trifling balance due to the purser.

**PROSPECTS OF THE MINE.**

The following FACTS demand attention:—

1. The mine has been economically worked by two gentlemen out of their private capital, and, therefore, kept free from the injurious influences of jobbing speculators.

2. The Pontan Railroad—the sea terminus of which is but three miles off—passes through the mine.

3. The two principal lodes in this mine are the celebrated Old Polgooth or Downright lode, and the Great St. Martin's lode. The former has yielded many hundred thousand pounds worth of tin, and has been worked to the 110 fathom level, and was for many years one of the most profitable lodes in Cornwall. The Great St. Martin's has also paid more than £100,000 profit in tin and copper, and has of late years (with small partial lodes) yielded upwards of £20,000 per annum, mainly from the removal of backs left from former workings and the extension of levels. The principal riches of the Great St. Martin's and Downright lodes were obtained from the 35 to the 100 fathom levels, which, of course, is all virgin ground in Menaguins. The upper levels of Menaguins have yielded equal produce with those of Polgooth, as some few hundred pounds worth of tinstuff at great sale; and hence it is fairly inferable that the deeper levels will be also equally productive. From the report of the Great Polgooth Mine, at the meeting given in the *Mining Journal* of September 20th, we learn that a profit of £1100 was made during the last three months, with every prospect of further success. The following extracts from that report are worth notice, as they show that all their richer ends are advancing towards Menaguins, which is on their eastern boundary:—"The eastern section of the mine from which the produce is now raised." "The most eastern end is now opening a lode worth 5 cwt. per 100 sacks." "The various levels and winzes are all producing tin, and some of the tribute pitches are working at low tributes." "The property is worth at least £10,000 more than when purchased by the present company." "The purchase was £35,000."

The following reports will show that the proprietors are not singular in their views of the value of the mine:—

**REPORT OF CAPTAIN EUSTACE.**

St. Austell, July 11.—I have examined the north lode, Downright lode, branch, &c. The great Downright lode would pay for stoping throughout. The ends going east are very promising, and those going west very productive. The average produce of all the stuff taken from the winze is 64 cwt. per 100 sacks; of the 20 and west 34, the lode being 4 feet wide, and the 30 and east 34, the lode being 6 feet wide. The junction of the eastern end, as with the caunter gives a favorable prospect, and I advise your sinking at once to the 55, as at that point the south branch will join the great lode, and these intersections have always made rich bunches in Great Polgooth. The tin in the hill are equal on the backs to any in the district, not excepting Par or Grinnell. The great caunter is a large champion lode, and will, no doubt, enrich the east and west lodes, besides being a mine in itself. Caunters have made rich mines in the Cornish district. You can set your present backs on tribute, and should there be no improvement in depth, the mine would pay well; while no miner would have a doubt of its increasing value at each deeper level, and of its paying very large profits.

JOHN EUSTACE.

**REPORT OF CAPTAIN W. RICHARDS, OF WHEAL BASSET.**

St. Austell, July 11.—I have inspected the mining set called Menaguins, near this place, which I find situated east of, and adjoining the Great Polgooth Mine, and, of course, embraces the same lodes or veins. The set of Menaguins is very extensive, and has within its limits a great many lodes of great promise. On the north part, two or three lodes have been partially explored, 35 fathoms from surface, with the aid of a small steam-engine. I consider the prospect will justify the erection of a large engine, which is necessary to develop the mine in depth, when I feel confident that a large quantity of mineral will be raised, and the mine made profitable. There is now at the surface a large quantity of tinstuff raised from the 20 and 30, below adit.

South of the workings before described are several other lodes of very promising appearance, but these have only been seen near the surface; an adit is now being driven to explore them, which, by an extension of 60 to 70 fathoms more, is likely to intersect three or four lodes; and this adit coming in 35 fathoms deep, will in a great measure prove them, or show if likely to make ore in depth. On the south part of this set another lode has been partially worked, about 30 fathoms deep, and several tons of good ore raised therefrom. This I also consider a kindly speculation, and taking the mine altogether, with its various east and west lodes, caunters, and their intersections, I consider it a good speculation, with every prospect of making a large and valuable mine.

W. RICHARDS.

**PROSPECTUS.**

The Menaguins Mine, of which the "Present Condition," the "Future Prospects," and the "Reports," are above detailed, has been hitherto explored and worked so far by two gentlemen out of their private capital, at an expense of upwards of £7000. But, in order to the full development of the splendid prospects which the mine holds out, the following works are imperatively called for:—

1. The erection of a 10-inch cylinder engine—the water being too quick for the present engine.

2. The erection of a 22-inch stamping engine, stamping machinery, floors, &c.

3. The sinking of a shaft from the 35 to the 55—extending cross-cuts to the Great Downright lode and levels thereon, at the 45 and 55, to open tribute ground, &c.

4. The continuation of the deep adit.

These works, to be thoroughly done, will require an additional outlay of about £5300. The present proprietors have, therefore, determined to allow the public to come in, and have come to the following resolutions:—

1. To increase the present capital, by the issue of 768 (or three-quarters of the present number) new shares, at par—i.e., £2 each, producing £5300, payable within a month.

2. The manager and purser will contract to do all the work above-mentioned for £5300—thus leaving all the tinstuff now at surface, and to be raised by opening the 45 and 55 fathom levels, and by extending the ends and setting the backs of the 25 and 35 fm. levels, to form a fund for dividends.

The mine is conducted on the "Cost-book" System. The shareholders will be exonerated from all expense of London management, as the two gentlemen who have hitherto worked the mine will agree to continue to keep the books, free of charge to the Company, each shareholder having daily access to them, at their office in London, during ordinary business hours; and they unhesitatingly assert that, after some few months are spent in erecting the required machinery, and doing the work proposed, continuous two-monthly dividends must follow—the only question being as to whether the mine will pay 20 or 25, or more, per cent. per annum profit—though much greater things have been done by other mines with less promise.

Gentlemen desiring to invest will be preferred, as it is intended to work the mine legitimately, and to discourage jobbing in shares.

In the distribution of the shares priority of application will be considered, and each share will be sold with the condition that no other call will be made.

Applications for shares may be made to R. Allsop, Esq., stockbroker, 1, Royal Exchange-buildings, London; Messrs. Mowatt and Penson, stockbrokers, Liverpool; Messrs. Heywood & Co., stockbrokers, Manchester; Mr. R. Offord, 79, Well-street, Oxford-street; Mr. J. Offord, 2, Auburn-place, Plymouth; Mr. J. Badger, St. Austell, Cornwall.

**ED. J. DENT HAS REMOVED FROM 82 TO 61, STRAND**  
(being 21 doors nearer to Charing-cross, and directly opposite Bedford-street), and solicits an INSPECTION of his extensive STOCK of CHRONOMETERS, WATCHES, and CLOCKS, as above; also at No. 33, COCKSPUR-STREET, and No. 34, ROYAL EXCHANGE (Clock Tower area).

**NOTICE.—CALIFORNIA.—The Undersigned, SOLE REPRESENTATIVE IN EUROPE of the Hon. Colonel JOHN CHARLES FREMONT,**

Notifies the British Public that, by a letter from Colonel Fremont of the 1st of October, 1851, arrived by this day's mail from California, he has received the fullest confirmation of the existence of gold, also implicit instructions to publish in the *Times* and other papers notice from him as follows:—

"Whereas there is good reason to apprehend that unauthorised persons have illegally and fraudulently attempted to exercise rights and authority in, over, and upon my estates of Mariposa, in California, I, the said John Charles Fremont, do hereby distinctly warn and advise all persons whomsoever against entering into any contract, in Europe, for sale, or lease, or engagement of any kind whatsoever in reference to my said estates in California, except with my only authorised representative in Europe, David Hoffman, Esq., of London."

48, Dover-street, Piccadilly, Nov. 19, 1851.  
I desire it to be expressly understood that the foregoing applies in no respect to the Nouveau Monde, the Golden Mountain Mining Company, the Quartz Rock Gold Mining Company, under Lord Erskine, or any other company formed under my auspices. D. H.

**ANGLO-CALIFORNIAN GOLD MINING COMPANY.**

INCORPORATED PURSUANT TO 7 AND 8 VICTORIA.  
The Directors of this Company have the pleasure of informing the shareholders that they are now COMPLETELY REGISTERED; and to acquaint them that the Report was issued on the 19th inst., giving them a detail of the progress and prospects of this Company. No association was ever brought before the public with equal prospects of speedy and successful results. Sir Henry Huntley has been in California for five months, and the course adopted by the Directors for carrying out this enterprise results from the experience obtained by him during that period. Machinery for the crushing of quartz, with funds sufficient for putting it in motion, have been placed under his control, and unless some unexpected delay has arisen, the machinery is now actually at work, and a return will be made about Christmas next.

The Directors cannot but express their best thanks to the shareholders for the uniform support they have received on all occasions, and pledge themselves that the affairs of this Company shall be conducted with the most rigid economy, and with the sole view of forwarding the interests of the shareholders.

Prospectuses may be had on application at the offices of the Company, No. 11, Adolphus-street, Adelphi.

By order of the board,  
**GEO. F. GOODMAN, Sec. ad interim.**

**GOLD DISCOVERIES.—NOTES ON THE DISTRIBUTION**

of GOLD THROUGHOUT THE WORLD, with Four Maps.—1. The World, showing the Gold Districts.—2. The Gold Districts of Australia.—3. The Gold District, from Bathurst to Sydney.—4. The Gold District of California. By JAMES WYLD, Geographer to the Queen and His Royal Highness Prince Albert, Charing-cross East; 2, Royal Exchange, London; and Model of the Earth, Leicester square.

Wyd's Folio Atlas, half-bound in Russia, £11 14s.

**STEAM TO INDIA, CHINA, &c.—Particulars of the regular MONTHLY MAIL STEAM CONVEYANCE.**

AND OF THE ADDITIONAL LINES OF COMMUNICATION, NOW ESTABLISHED BY THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY with the EAST, &c. &c. The Company book PASSENGERS, and receive GOODS and PARCELS, as heretofore, for CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG KONG, by their steamers, starting from SOUTHAMPTON on the 20th of every month, and from SEUEZ on or about the 10th of the month.

The next extra steamer will be dispatched from Southampton for Alexandria, on the 3d of April next, in combination with an extra steamer, to leave Calcutta on or about the 20th of March. Passengers may be booked, and goods and parcels forwarded by these extra steamers to or from SOUTHAMPTON, ALEXANDRIA, ADEN, CEYLON, MADRAS, and CALCUTTA.

BOMBAY.—The Company will likewise dispatch from Bombay, about the 17th December and 17th February next, a first-class steam-ship for ADEN, to meet there the Company's ships between Calcutta and Seue, in connection with their Mediterranean steamers leaving Alexandria about 6th January and 6th March, affording direct conveyance for passengers, parcels, and goods, from BOMBAY to SOUTHAMPTON.

PASSENGERS, PARCELS, and GOODS for BOMBAY and WESTERN INDIA will also be CONVEYED THROUGHOUT IN THE M.E.S. steamers, leaving Southampton on the 20th December and 20th February next, and the corresponding vessels from Seue to Aden, at which latter port a steam-ship of the Company will be in waiting to embark and convey them to Bombay.

Passengers for Bombay can also proceed by this Company's steamers of the 29th of the month to Malta, thence to Alexandria, by Her Majesty's steamers, and from Seue by the Honourable East India Company's steamers.

MEDITERRANEAN.—MALTA: On the 20th and 29th of every month.—CONSTANTINOPLE: On the 25th of the month.—ALEXANDRIA: On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th, 17th, and 27th of the month.

N.B.—Steam-ships of the Company now ply direct between Calcutta, Penang, Singapore, and Hong Kong, and between Hong Kong and Shanghai.

For further information and tariffs of the Company's recently revised and reduced rates of passage money and freight, and for plans of the vessels, and to secure passages, &c., apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

TO MINE PROPRIETORS, WATER-WORK AND LAND-DRAINAGE COMPANIES, CONTRACTORS, MANUFACTURERS, AND OTHERS.

**GREAT BRITAIN STEAM-SHIP.**

The PROPRIETORS of this SHIP desire TENDERS for the WHOLE (or for any definite section, that would not prejudice the entirety of the remainder) of her STEAM MACHINERY, as originally constructed, consisting of FOUR 66-inch CYLINDERS, of 6-feet stroke, with pistons and rods, air-pumps and condensers, connecting-rods and guides, and all the detail of nozzle and valve gearing, necessary to render each pair of cylinders complete in themselves, from the pistons to the crank-plans.

Apply to Mr. Croome, civil engineer, or Capt. Mathews, on board the vessel, Sandon Graving Dock; or Gibbs, Bright, & Co., Liverpool.

**LIVERPOOL COLLEGE OF CHEMISTRY.**

Professor—Dr. SHERIDAN MURPHY, F.R.S.E.  
STUDENTS ARE INSTRUCTED IN EVERY BRANCH OF THE SCIENCE.  
Fees for Analysis or Assays may be had on application, with full prospectuses.

**STIRLING'S PATENT YELLOW METALS.—Adapted for SHEATHING, BOLT STAVES, BOLT NAILS, DECK NAILS, as reported on by the late Mr. Owen, Supervisor of Metals to the Admiralty; also for PROPELLERS, FRAMEWORK SCREWS, PISTONS, CYLINDERS, COCKS (particularly where there is exposure to corrosion), RAILWAY CARRIAGE AXLE BEARINGS, and for all machinery subject to friction.**

Messrs. JOHNSON, 166, Buchanan-street, Glasgow.  
Applications for licenses and other information to be addressed to the undersigned ALFRED BARRETT, Bishopgate Foundry, Skinner-street.

**NATIONAL ASSURANCE AND INVESTMENT ASSOCIATION.**

No. 7, ST. MARTIN'S-PLACE, TRAFALGAR-SQUARE, LONDON.  
ESTABLISHED MAY, 1844.

TRUSTEES.  
Lieut.-Colonel the Right Hon. LORD GEORGE PAGET, M.P.  
Rev. JOSEPH PRENDERGAST, D.D. (Canab.), Lewisham.  
GEORGE STONE, Esq., banker, Lombard-street.  
MATTHEW HUTTON CHAYTOR, Esq., Reigate.

This Society combines the advantages of Life Assurance with those of a safe and profitable investment of capital. The plan is original, and cannot be adopted by any other institution without contravening the enactments for the regulation of joint-stock companies.

**IMPORTANT AND PECULIAR ADVANTAGES:**—Policies are absolutely INDISPENSABLE, and made PAYABLE to the HOLDER BY



Shares.	Paid.	Last Price.	Present Price.
2500 Rhonwyddel and Bachelddon (lead) Wales.	104	15	171

Shares.	Mines.	Paid.	Dividends per Share Declared.	Last Paid.	Last Price.	Present Price.
5120	Allford Consols (copper), Pithillack	£3	£ 1 19 to 1st Oct.	£0 6 0 Oct.	121	14
1248	Alt-y-Crib (silver-lead), Tal-y-bont, Wales	—	0 7 5 to Oct.	0 5 0	91 5	6 8 9
1624	Ballaughadden (tin), St. Just	11 1/2	9 2 to Oct.	0 7 to Oct.	10	—
4000	Bedford United (copper), Tavistock Devon	2 1/2	3 0 to Oct.	0 4 to Oct.	7 1/2	72 7 7 1/2
60	Black Craig (lead), Kirkcudbrightshire	—	0 2 0 to Nov. 1851	0 3 6 to Nov.	4 1/2	4
5000	Boswell Downs (tin), St. Just	—	750 0 to May, 1849	—	100	—
60	Botalnash (tin and copper), St. Just	183 1/2	440 0 to 5th April	5 0 to May	215	215
1000	Brynallt, Llanidloes, Montgomeryshire	2 1/2	0 5 to end June	0 5 to June	14	14 15
1000	Callington (lead and copper), Callington, Cornwall	29	6 0 Sept. 1847	—	5	—
4000	Calstock United (copper)	2 1/2	0 5 to Oct. 1851	0 5 to Oct.	6	—
1000	Carn Brea (copper and tin), Illogan	15	206 0 to Sept. 1851	2 0 to Sept.	95	—
128	Comford (copper), Gwennap, Cornwall	70	—	200	200	200
200	Condurow (copper and tin), Camborne, Cornwall	60	13 0 to Oct. 1851	2 0 to Oct.	105	105 110
1024	Cornystwith (lead), Cardiganshire	1	214 10 to Sept.	5 0 to Sept.	280	285
180	Dolcoath (copper and tin), Camborne	252 1/2	853 14 to 1847	—	28	—
128	East Pool (tin and copper), Pool, Illogan, Cornwall	24 1/2	233 0 to 1843	—	112 1/2	110
94	East Wheal Crofty (copper), Illogan, Cornwall	125	242 10	—	150	—
128	East Wheal Rose (silver-lead), Newlyn	80	2227 10 to 5th Sept.	12 10 to Sept.	425	—
494	Fowey Consols (copper), Tywardreath	40	—	—	30	—
2750	General Mining Company for Ireland (copper)	5 1/2	35 per cent. to June	10 per cent. 1 year	5	—
100	Goginan (lead), Cardiganshire, Wales	—	440 0	—	150	—
96	Great Consols (copper), Gwennap, Cornwall	3	353 6 8 to January	—	200	—
100	Great Consols (tin), St. Austell	3	0 2 to Sept.	—	300	—
119	Great Work (tin), Gernoe	100	115 0 to Aug.	5 0 to Aug.	2 1/2	—
1024	Herodafot (lead), near Liskeard, Cornwall	8 1/2	0 7 6 to Aug.	0 12 6 to Aug.	4 1/2	—
1000	Holmabush (lead and copper), Callington	24	25 0 to Feb. 1844	Feb. 1844	12 1/2	—
786	Kirkcudbrightshire (lead), Kirkcudbright	9 1/2	0 5 to Sept.	0 5 in Sept.	4 1/2	4 1/2
1000	Lewis (tin and copper), St. Erth	17	2 0 to 1st Aug.	0 10 to Aug.	14	12 13
180	Levant (copper and tin), St. Just	24 1/2	1032 0 to 5th Sept.	2 0 to Sept.	140	—
100	Lisabone (lead), Cardiganshire, Wales	75	640 0 to 1st Aug.	20 0 to Aug. 1	700	—
90000	Low's Patent Copper Smelting Company	2	1 4 6 to July 1	—	10	—
200	Luning, Consols of Ireland (copper, lead, and coal)	7	7 10 6 to Feb. 1847	7 p. cent. p. annum	50	62 5 1/2
200	North Pool (copper and tin), Pool	22 1/2	225 0 to 1st Nov.	7 10 to Nov.	200	—
140	North Roskear (copper), Camborne	10	231 0 to ditto	5 0 to Nov.	180	—
6000	North Wheal Bassett (copper and tin), Illogan	—	1 1 to 5th April	—	10	—
128	Par Consols (copper), St. Blazey	552	374 0	—	650	—
1160	Perran St. George (copper and tin), Perranzabuloe	21 1/2	1 13 to June	0 10 to 4th June	40	35
200	Phoenix (copper and tin), Linkinhorne	30	10 0 to March 5	5 0 to March	240	—
850	Providence Mines (tin) Uny Lelant	20 1/2	18 4 6 to Aug.	0 15 to Aug.	25	—
200	South Canadian (copper), St. Austell	1 1/2	225 0 to July	120	115 135	—
200	South Tamar (copper), Redruth, Cornwall	10	30 0 to 5th Oct.	3 0 to Oct.	145	150
248	South Wheal Frances (copper), Illogan	80	107 15 to Nov.	6 0 to Nov.	175	—
1024	Spearhead Consols (tin), St. Just, Cornwall	14	3 10 0 to Sept.	0 2 6 to Sept.	9 1/2	11
94	St. Ives Consols (tin), St. Ives	80	859 0 to Aug.	4 0 to Aug.	125	—
1000	Stray Park and Camborne Vein (copper), Cornwall	15	11 10	—	9	10 11
9500	Tamar Consols (silver-lead), Boerston	4	2 11 to July, 1849	—	3 1/2	—
6000	Tincroft (copper and tin), near Pool, Illogan	7	5 17 6 to Sept.	—	6 1/2	—
512	Treloar (silver-lead), Menheniot	1	14 7 6 to Nov.	0 10 to Nov.	7 1/2	—
9000	Trevelick Consols (copper), St. Austell	3 1/2	0 3 0 to Oct. 1847	0 5 Oct. 1847	15	—
96	Trevelick (copper), Gwennap, Cornwall	20	4680 15 to 1848	—	200	—
120	Trevelick (copper), Gwennap, Cornwall	5	402 10 to 5th April	—	15	—
120	Treviacker and Barrier (copper), Gwennap	130	246 5 to Oct.	6 10 to Oct.	210	205
300	United Mines (copper), Gwennap	80	2 10 to Sept.	2 10 to Sept.	75	—
1024	Wellington (copper and tin), Perranzabuloe	6 1/2	2 2 6	0 5 to March	2	38 4
200	West Canadian (copper), Liskeard, Cornwall	20	165 5 to Nov.	2 10 to Nov.	100 ex div.	105
512	West Providence (tin), St. Erth	10	0 0 to Nov.	5 0 to Nov.	102 1/2	—
256	Wheal Bassett (copper), Illogan	10 1/2	255 0 to 3d Oct.	10 0 to 3d Oct.	377 1/2	—
256	Wheal Basset (copper), Illogan	10 1/2	—	—	380	74 7 1/2
256	Wheal Buller (copper), Redruth	5	109 0 to 1st Oct.	12 10 to Oct.	550	—
124	Wh. Castle and Boswedden (tin & copper)	5	—	20	20	—
126	Wheal Friendship (copper) Devon	120	2331 10 to Aug.	6 0 to Aug.	115	110
5000	Wheal Golden Consols (silver-lead), Perranzabuloe	3	1 0 to July	0 5 to July	9 1/2	9 1 10
430	Wheal Lovel (tin), Helston	33	10 0 to 7th Nov.	2 0 to Nov.	32 1/2	—
112	Wheal Margaret (tin), Uny Lelant	79	187 0 to Aug.	5 8 to Aug.	150	140
512	Wheal Mary Ann (lead), Menheniot	5 1/2	21 5 to 21st Aug.	3 0 to Aug.	52 1/2	49 50
200	Wheal Mary Ann (lead), Menheniot	200	—	—	300	—
240	Wheal Roeth (tin), Uny Lelant	20 1/2	27 10 to August	2 10 to Aug.	80 85	85
198	Wheal Seta. (tin and copper), Camborne, Cornwall	107	199 10 to 5th Oct.	5 0 to Oct.	206	—
820	Wheal Trelawny (silver-lead), Liskeard, Cornwall	3 1/2	26 10	2 0 to May	38	38 37
1024	Wheal Tremayne (tin and cop.), Gwinnear, Cornwall	9 1/2	6 15 to Oct.	0 15 to Oct.	25	25
5000	Wicklow (copper), Wicklow	5	313 per cent. Aug.	18 p. cent. end Aug.	28 1/2	—
4948	Rix Hill (tin), Tavistock	1	—	—	1	1
1900	Rocka and Treverbyn (tin), St. Austell	4 1/2	—	—	4 1/2	—
2048	Runnaford Coombe (tin)	3	—	—	3	—
1024	Sidney Goldolphin (copper), Breage	4 1/2	—	—	4 1/2	—
10000	Silver Vein & W. Brothers (silver-lead)	1	—	—	1	—
1024	Sourton Consols	2 1/2	—	—	2 1/2	—
2000	South of Scotland	1 1/2	—	—	1 1/2	—
2000	South Carr Brea (copper), Illogan	10	—	—	4	—
356	South Friendship Wh. Ann (copper & tin)	30	—	—	38	—
1024	South Plain Wood (copper), Ashburton	5	—	—	6	—
300	South Speed (copper and tin), Uny Lelant	15	—	—	30	—
9000	South Tamar (silver-lead), Beer Ferris	11	—	—	12	—
9000	South Trevelin (copper), near Liskeard	15	—	—	12	—
3000	South Wales Mining Company (lead)	3 1/2	—	—	3	—
256	South Wheal Josiah (copper), Calstock	2	—	—	1	—
280	Spearme Moor (copper), St. Just	80	—	—	40	—
2500	St. Agnes Beacon (tin and copper)	21 1/2	—	—	2 1/2	—
1024	St. Aubyn and Grylls (copper and tin)	3	—	—	5	—
12000	St. Enoder (copper and lead) St. Enoder	1	—	—	1	—
999	St. Minver Consols (silver-lead)	1	—	—	3	—
687	Tavy Consols (copper), near Tavistock	9	—	—	5	—
5000	Temple Consols (tin & copper) Cornwall	2 1/2	—	—	1	—
120	Tokenbury (copper), St. Ives, Liskeard	11 1/2	—	—	10	—
1200	Tolcarne (tin and copper), Camborne	2 1/2	—	—	4 1/2	—
1024	Trannack and Bosence, St. Erth	12	—	—	3 1/2	—
1024	Trannack United Mines (tin and copper)	1 1/2	—	—	3 1/2	—
1024	Trebarrah, Perranzabuloe	1	—	—	3 1/2	—
3048	Trebell Consols (tin and copper), Lanivet	14 1/2	—	—	1 1/2	—
9600	Tregodick (lead), St. Teath	16 1/2	—	—	11	—
2048	Tregordick (silver-lead) Wadsworth	16 1/2	—	—	11	—
1200	Treloweth (copper), St. Erth	6	—	—	5	—
6000	Trelyon Consols (tin), St. Ives	4 1/2	—	—	2 1/2	—
1024	Tremar (copper), Liskeard	3 1/2	—	—	1	—
2000	Trenance (copper), Helston	6	—	—	5	—
6000	Treanant (lime quarries)	21 1/2	—	—	4 1/2	—
512	Trethrey (copper), St. Cleer	120	—	—	4 1/2	—
512	Treville (lead), Lewannick	4 1/2	—	—	—	—
2048	Treyilian (tin and copper)	20	—	—	2 1/2	—
60	Trowan Consols (tin), Towardack	7	—	—	9	—
100	Trumpet Consols (tin), near Helston	95	—	—	100	—
4000	Tyn-y-Worgold (slate), near Carnarvon	4	—	—	4	—
200	Tywarnhaile (copper), Illogan & St. Agnes	60	—	—	22	—
512	Tywardreath (copper), St. Blazey	4	—	—	12 1/2	—
1024	United Mines (copper and tin), Tavistock	12 1/2	—	—	10 1/2 10 1/2	—
1024	Warleggan Consols (copper)	2 1/2	—	—	—	—
1024	West Alfred Consols (copper), Phillack	9 1/2	—	—	9	—
6000	West Basset (copper), Illogan	10 1/2	—	—	—	—
1024	West Beam (tin), St. Austell	29 1/2	—	—	6 1/2	—
5000	West Callington, copper	1	—	—	1 1/2	—
256	West Damsel (copper), Gwennap	5 1/2	—	—	80	77 1/2
1024	West Ding-Dong (tin), Sancerre	1	—	—	2	—
1024	West Downs (copper and tin), Whitelchurch	2 1/2	—	—	3	—
512	West Fowey Con. (tin & cop.), St. Blazey	40	—	—	60	—
2048	West Goginan (silver-lead), Cardiganshire	14	—	—	8	—
1024	West Par Consols (copper), St. Blazey	18 1/2	—	—	—	—
12	West Pentrice (copper and lead), Padstow	4	—	—	4	—
1024	West Phoenix, Linkinhorne	7	—	—	6	—
6500	West Polgooth (tin), St. Ewe & St. Mewan	1	—	—	1	—
200	West Seton (copper), Camborne	71	—	—	100	—
256	West Sharp Tor (copper) Linkinhorne	22	—	—	49	—
940	West Tolgus (copper), Illogan	14 1/2	—	—	2	—
120	West Trevelin (copper), Gwennap	15	—	—	10	—
1110	West United Hill (copper), Illogan	4	—	—	2 1/2	—
5000	West Wheal Alfred (copper) Hayle	14 1/2	—	—	1 1/2	—
512	West Wheal Frances (copper), Illogan	9	—	—	12	—
4000	West Wheal Friendship (copper), Devon	14 1/2	—	—	5	—
3715	West Wheal Jewel (tin and copper)	12	—	—	1 1/2	—
2048	West Wheal Rose, lead	2	—	—	2 1/2	—
4000	West Wheal Russell, Tavistock	—	—	—	—	—
124	West Wheal Sheba	10 1/2	—	—	1	—
500	West Wheal Towan (copper), Illogan	21	—	—	11 1/2	—
1024	West Wheal Trevelin (copper), Gwinnear	8	—	—	1 1/2	—
1024	West Wheal Virgin (tin), Sancerre	2	—	—	1 1/2	—
1024	Weston (lead), Cherbury, Shropshire	14 1/2	—	—	4	—
1070	Wheal Adams (lead), Christow, Exeter	13 1/2	—	—	16	—

1000	Wheal Agar (copper), Illogan .....
300	Wheal Arthur (lead), near East Wh. Rose

10000	Alsen Mining Company (copper), Norway	£143	3 0	0 to Mar., 1848	—	2	1228	Wheel Arthur (silver-lead & cop.), Calstock	2	—	24	...
10000	Brazilian Imperial (gold), Brazil	244	3 17	6 to Dec., 1844	—	2	3079	Wheel Augusta (tin), St. Just	1	...	2	...
12000	Cobas Copper Company (copper), Cuba	—	45 12	0 to June 1851	31, to June	384	33 53	Wheel Bel (tin), St. Just	54	10	...	...
10000	Copiahua Mining Company (copper), Chile	14	10 10	0 to Oct. 1850	8 to Oct.	12	240	Wheel Caradon (copper), St. Cleer	1	...	24	...
10000	Copiahua Mining Association (iron & coal), Nova Scotia	50	6 10	0 to June, 1851	10s. June, 1851	12	256	Wheel Carpenter (tin), Gwnear	1	...	24	...
2700	Marmato (gold), Colombia	24	2 0	0 to June, 1851	17, to June, 1851	—	—	1024	Wm. Carpenter (lead & cop.), S. Sydenham	3	...	...
5051	Mexican Company (silver), Mexico	89	0 8	6 end of 1846	44, in 1846	4	—	1024	Wheel Chilverton (silver-lead), Liskeard	2	...	...
10000	Mexican (copper), Mexico	12	4 0	to July, 1846	—	38	—	1024	Wheel Chilverton (lead), Perranzabuloe	23	...	...
11000	St. John del Rey (gold), Brazil	15	12 17	6 to Dec., 1850	17, 10s. to June 7	204	204	512	Wheel Constance (lead), Newlyn	3	...	10
43174	United Mexican (silver), Mexico	A.v. 284	1 12	6 to Feb., 1850	7s. 6d. to Feb., 1850	24	24	1024	Wheel Crebor (copper), Tavistock	4	...	...

[illegible]

The numerous mutilations to which unfortunate human nature is subject, alas! of frequent occurrence, both by war and accident, and it must be going to the sufferers to find remedies provided for their great losses. It is worthy of artificial legs manufactured by Mr. Fred. Gray, of Cork-street, are worth all praise, for their simplicity, strength, lightness, and close resemblance to nature. The admirable and perfect manner in which Mr. Gray fixes and encloses the mutilated limb in the socket is of vast importance, for with this so effectually done, great torture and inconvenience must ensue to the wearer. The Marquis of Anglesey for many years has worn the legs manufactured by Mr. Gray.

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